HISTORY OF ROCKWELL FIELD

by

Major H. H. Arnold, A. S.

PART 1

PREFACE

In preparing this history an attempt has been made to assemble data and information which will be of value and interest to those who have been instrumental in the development of Rockwell Field and consequently the Army Air Service.

Rockwell Field has been well called the "Cradle of Army Aviation" for it was the first regularly organized Aviation school operated by the Army and in addition has graduated some of the Army's most famous Aviators. World's records have been made and broken at this Army Aviation Field ever since the first Army detachment moved on North Island.

The data concerning North Island before its occupancy by the Army was obtained from reports of the Geological Survey: "Two Years before the "Mast" by Dana; "History of San Diego" by Smythe; "California under the Spaniards" by C. E. Chapman, and "California under the Americans" by R. G. Cleland, and records obtained from the County Court House at San Diego.

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PART ONE

CHRONOLOGICAL LIST OF EVENTS:

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September 28, 1542	- Juan Rodriquez Cabrillo sailed into San Diego Bay.	11
November 10, 1602	- Don Sebastain Viscanio sailed into San Diego Bay and charted the harbor and named it San Diego Bay.	12
April 11, 1769	- Juan Perez brought the advance party of the first Mission Expedition.	12
1793	- Fort Guijarros projected.	13
1800	- Fort Guijarros completed.	13
1803	- American trading and whaling vessels used San Diego Harbor as a base.	14
1838	- Fort Guijarros depleted till it consisted of one soldier.	13
May 15, 1846	- Governor Pio Pico granted Don Pedro Carrillo tract of land consisting of Coronado Island, North Island and the Silver Strand.	14
July 27, 1846	- Captain S. Y. DuPont, commanding the U. S. "Cyane" arrived with General Freemont. This was the first official occupancy of San Diego as an American Possession.	17
October 29, 1846	- Pedro Carrillo sold to Mr. Beezer Simmons, North Island, Coronado Island and Silver Strand for $1,000 in silver.	15
June 28, 1850	- Mr. Simmons sold his title to Coronado Peninsula to Wm. H. Aspinwall, Frederick Billings, Archibald C. Peachy, James Bolton and H. W. Hallock for $10,006.	15
1850	- Government Barracks erected in San Diego. These were the first Government buildings erected.	17
1873	- Mr. Charles F. Holly purchased Coronado Peninsula for $110,850.00	15

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April	1, 1874 - Existing trees cut off North Island	18
June	20, 1877 - Peninsula of Coronado sold to George Granniss for $116,338.68.	15
April	16, 1886 - Coronado Beach Company purchased Coronado peninsula for $100,000.00.	15
April	15, 1893 - 18.05 acres of land condemned by U. S. Government for construction of jetty.	19
	1901 - 38.56 acres of land condemned on southwest corner of North Island for construction of Fort Pio Pico. Fort was completed in 1904.	19
February	2, 1911 - Glenn Curtiss established first Aviation School on North Island.	20
November	4, 1912 - First Detachment, Air Service Troops, arrived and established Air Service Station on North Island.	22
December	15, 1912 - First Airplane flight made over North Island by Government Airplanes.	23
March	28, 1913 - Lieut T. D. Millings, created new world endurance record by remaining in air 4 hours and 22 minutes.	25
November	1913 - Aviation School on North Island definitely designated by War Department. Orders as "Signal Corps Aviation School".	27
December	26, 1913 - Lieuts. J. E. Carberry and W. R. Taliaferro established new American Altitude Record for pilot and passenger, reaching altitude of 1,000 feet.	27
January	1914 - First temporary buildings erected by Government on North Island.	28
April	1914 - First Bomb dropping experiments conducted in world took place on North Island.	31

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July	5, 1914 - 4th Regiment of Marines under command of Colonel J. Pendleton took station on North Island.	32
October	8, 1914 - New American altitude record created by Lieut. H. L. Muller.	33
January	1915 - Additional temporary hanger erected by Government.	37
January	5, 1915 - Lieuts. J. E. Carberry and R. E. Christy established new American altitude record for pilot and passenger.	39 - 40
January	5, 1915 - Lieut. B. Q. Jones established new American endurance record.	40
July	4, 1915 - First parachute jump at North Island.	46
July	26, 1915 - First Aero Squadron left for Fort Sill, Oklahoma. Capt. B. D. Foulois in command.	47
September	17, 1915 - Lieut. W. R. Taliaferro established new American endurance record.	50
December	1, 1915 - Coronado Beach Company notified U. S. Government to vacate North Island not later than March 31, 1916.	52
January	15, 1916 - Floyd Smith established new world's altitude record for seaplanes.	56
July	27, 1916 - First successful radio Government test conducted by airplane with Lieut. C. C. Culver.	57
January	10, 1917 - Colonel Bishop and Lieut. Robertson returned to Aviation School at North Island.	61
March	5, 1917 - Detachment 6th Aero Squadron sent to Hawaii.	81
January	19, 1917 - Colonel Bishop and Lieut. Robertson lost in Mexico.	59

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March	10, 1917 -	Detachment 7th Aero Squadron sent to Panama.	81
July	14, 1917 -	First Detachment Ground School graduates arrived for instruction.	70
July	20, 1917 -	Aviation School on North Island received its present name "Rockwell Field" by Memorandum No. 59, Office of Chief Signal Officer, dated July 20, 1917.	65
August	7, 1917 -	President of United States signed Executive Order for condemnation of North Island.	16
September	8, 1917 -	First occupancy of North Island by the Navy.	70
November	23, 1917 -	135 Aero Squadron left Rockwell Field for duty overseas, Lieut. Arthur Scheelen in command.	82
January	18, 1918 -	142nd Aero Squadron left for duty overseas Captain R. Fawcett in command.	82
January	30, 1918 -	Construction of permanent buildings and bridge across Spanish Bight started.	76
February	1, 1918 -	First temporary buildings on present sight of Rockwell finished - Photographic Laboratory.	77
May	1, 1918 -	Transfer of Army Aviation School to present site started.	77
June	1, 1918 -	Bridge over Spanish Bight Completed	78
November	14, 1918 -	212 Airplanes put into air over city of San Diego.	83
December	1918 -	Major A. D. Smith with 5 planes left San Diego on transcontinental flight.	84
January	15, 1919 -	Detachment under Major Smith returned to Rockwell Field.	84
August	1919 -	9th Aero Squadron organized at Rockwell Field. Colonel H. L. Watson in command.	86

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August	19, 1919 - Lieuts. Connelly and Waterhouse lost in Mexico.	87 - 89
October	13, 1919 - Definite location of bodies of Lieuts.	89-90-91
October	14, 1919 - Lieuts. Sweeley and Duke and McCarn lost in Mexico.	91-92-93
October	21, 1919 - Lieuts. Duke, Sweeley and McCarn arrived in San Diego by Boat.	93
October	26, 1919 - Bodies of Lieuts. Connelly and Waterhouse arrived in San Diego.	91
November	28, 1919 - 2nd Aero Squadron left Rockwell Field for duty in Philippines. Captain R. G. Ervin in command.	86
January	1920 - Detachment, 9th Aero Squadron sent to Rockwell Field for Border Duty.	94
February	20, 1920 - 91st Aero Squadron arrived at Rockwell Field for training.	94
March	22, 1920 - Name of Air Service operations at Rockwell Field changed to "Aviation General Supply and Repair Depot, Rockwell Field, California.	96
April	20, 1920 - 9th Aero Squadron ordered from Rockwell Field to Mather Field for duty.	94
January	1921 - Last detachment of 91st Aero Squadron transferred to Mather Field.	96
February	21, 1921 - Lieut. W. D. Coney left Rockwell Field on one stop transcontinental flight.	97
July	29, 1921 - 18th Observation Squadron organized.	99
December	20, 1921 - U. S. Government paid Mr. John D. Spreckels check for $6,098,333.33 payment in full for North Island.	16

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July	23, 1922 - 18th Observation Squadron made inactive.	101
September	5, 1922 - Lieut. James H. Doolittle arrived in San Diego after completing one stop transcontinental flight.	102
October	5, 1922 - Lieuts. Kelly and Macready in T-2 established world's endurance record of 36 hours and 10 minutes.	102-103 104
November	3, 1922 - Lieuts. Kelly and Macready left Rockwell Field in T-2 for nonstop flight to New York.	105
December	7, 1922 - Colonel F. C. Marshall and Lieut. C. L. Webber left Rockwell Field for Tucson Arizona, and never arrived at destination.	106-109
May	4, 1923 - Bodies of Colonel Webber and Lieut. Marshall found in Cuyamaca Mountains.	
April	15-18, 1923 - Rockwell Field inspected by Chief of Air Service, Major General Mason M. Patrick.	110
May	3, 1923 - Lieuts. Kelly and Macready arrived at Rockwell Field terminating nonstop flight from New York City.	111
May	19-20, 1923 - Rockwell Field inspected by Secretary of War Weeks.	110
July	27, 1923 - First refueling flight.	112
July	31, 1923 - Rockwell Field inspected by General John J. Pershing.	110
August	27, 1923 - Lieuts. Smith and Richter left ground on refueling flight.	115

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August	28, 1923 -	Lieuts. Smith and Richter landed after having created three new world's records for speed and endurance and broke five world's records.	115-116
October	25, 1923 -	Lieuts. Smith and Richter landed at Rockwell Field after having made a non-stop flight from Canadian to Mexican Borders, receiving gas by refueling method at Eugene Ore. and Mather Field, California.	117
March	8, 1924,-	Round the World Planes landed at Rockwell Field for the purpose of swinging compasses and changing engines prior to departure on trip around the world.	129
June	8, 1924 -	91st Observation Squadron and 15th Photo Section arrived by truck train from Crissy Field on temporary duty with Summer Training Camps. Departed August 20, 1924.	131
June 20-July	31, 1924 -	Summer Training Camp for R.O.T.C. Students conducted at Rockwell Field.	131
August	3-17, 1924 -	Summer Training Camp for Reserve Officers conducted at Rockwell Field.	131
August	15, 1924 -	Despedida given in honor of Major Arnold.	127
September	22, 1924 -	World fliers arrived at Rockwell Field.	131

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P A R T 11

GEOLOGICAL FORMATION OF ISLAND

The tremendous upheaving and later subsiding movements which caused the now prominent geological formation in the vicinity of San Diego left three islands to the southwest of and a very short distance from the present site of the city of San Diego. The larger of these islands was formed into a ridge running from the northwest to the southwest, its highest point being about 400 feet above sea level, its greatest width about two miles and its length about seven miles. This is now Point Loma.

To the southeast of this were two flat islands, their greatest elevation being about forty feet above sea level. These two islands are now called North Island and Coronado. To the south of the present site of San Diego a large river emptied into what is now San Diego Bay. The currents from this river meeting with the ocean currents caused a deposit of sand and the final building up of a sand bar connecting Coronado to the mainland.

A later movement of the earth caused the river to materially change its form and broke it up into what are now the Sweetwater and Otay Reservoirs and the Tia Juana River. Farther to the north the San Diego River emptied alternately into what are now called the San Diego and Mission Bays. The sediment from the San Diego River was at first carried well out to the ocean but the currents formed by the two flat islands caused the building of the sand bar which now connects North Island with Coronado Island, and had a tendency to form another bar connecting North Island to what is now called Point Loma.

As time passed the sediment from the San Diego river was deposited close to its mouth and the delta was built up which finally completely connected the large island with the mainland changing it into Point Loma's present form. This formation is the only one of the three that has taken place within the memory of man as the oldest Indians who lived in San Diego at the time of arrival of the early Spaniards remembered Point Loma as an island.

JUAN RODRIQUEZ CABRILLO

As the time passed the winds and birds deposited seeds on Point Loma, North Island and Coronado, until when on Sept. 28, 1542, Juan Rodriquez Cabrillo sailed into what he called the Port of San Miguel, now known as San Diego Bay, he reported a forest growing in Point Loma and that North Island was partially covered with trees of the species rhus integrif olia, commonly known as Lemonade Berry or mahogany. The wood of this tree is heavy and hard, of mahogny color and is particularly prized for fuel.

Cabrillo had been sent out from Spain with two ships, the "San Salvador" and the "Victoria" in June 1542, for the purpose of finding the straits Anian, which were supposed to lead through to India between the Islands thought to be lying off the coast of Mexico and forming then what was known as the Americas. Mexico at that time was believed to be a projection from Asia. Cabrillo remained in San Diego harbor one day and then after taking possession of all the ground in the vicinity for Spain continued his explorations to the North.

NAMING OF SAN DIEGO:

In 1602 Don Sebastian Viscanio was sent out from Spain to locate the peninsula of Lower California and chart the harbors in the Californias which had been discovered by Cabrillo. Viscanio entered San Diego Harbor on November 10, 1602 and gave it the name of the patron Saint for that day "San Diego" (St. James) which name it now bears. Viscanio remained in San Diego Harbor ten days making a complete survey of the entire bay.

ANIMALS:

At that time the now almost extinct animal the sea-elephant was very numerous on the sands of Coronado and North Island and their yelps could be heard even in the inner harbor above the roar of the breakers. Records indicate that during this early period, in addition to the sea-elephant, others were numerous along the entire coast line of the island. Whales would come in from the ocean and it is stated that the crew of one ship at one time saw ten whales in the channel between North Island and Point Loma.

MISSIONS:

In conformity with its policy of establishing missions throughout the new Americas, in 1769 an expedition was sent out from Mexico, both by land and sea, to establish missions in the Alta Californias. On April 11, 1769, Juan Perez sailed into the bay with the advance party of the first expedition. The land expedition arrived somewhat later, and the first mission was founded on San Diego Bay on April 11, 1769, by Father Juniper Serra and Governor Portola.

FORT GUIJARROS:

The mission grew in size, and, due to the almost constant arrival of foreign trading vessels, it was necessary to establish a fort for the protection of the Spanish interest on the bay. In 1793, Fort Guijarros was projected on what is now known as Ballast Point, just across the channel from the west end of North Island. This fort increased in size and importance until in 1795 when the construction of implements for ten guns was started. The guns were in place in 1800.

As the internal political troubles developed in Mexico it became constantly more difficult for the Central Government to maintain its overseas garrison at their full strength, so that commencing in 1820 the garrison at Fort Guijarros was more and more depleted until in 1838, the garrison consisted of one soldier - he was a corporal.

SPRING ON NORTH ISLAND:

The question of water has been a most serious problem in San Diego ever since the earliest settlers. There was no fresh water available in the immediate vicinity of Fort Guijarros itself or was there any available for the garrison close by on Point Loma, so that about the time the fort was first garrisoned it was but natural that the soldiers should endeavor to locate fresh water somewhere near rather than accept the extreme hardship of transporting the water all the way from the town-site on the San Diego River. A party of soldiers soon thereafter located a spring of very good fresh water on the western end of North Island and from that time until the fort was completely abandoned in 1838 all the water for this fort was carried by boat from that spring. The spring was used less and less until finally its presence was known only to a few men who came to North Island for hunting.

and other purposes, although certain of the old timers who lived in th vicinity knew of its existence, its presence on the island apparently was forgotten by the owners of the land from about 1800 to its re-discovery in 1923 - a period of 123 years.

TRADING VESSELS:

Starting in 1803 the American trading and whaling vessels used San Diego harbor as a base. Seven hide warehouses were established on Point Loma across from North Island, and the crews from the hide vessels using the storehouses used to go in small boats to the spring on North Island to secure their fresh water. Also the whaling vessels anchored in the channel between North Island and Point Loma and sent their crews to the spring for fresh water. The boats were beached in a small inlet of water on the west side of the island and this inlet soon became known as Whalers Bight, a name it still bears.

SALE ON NORTH ISLAND:

North Island does not seem to have played any considerable part in the development of San Diego except furnishing water for visiting sailing vessels and as a hunting ground for sea elephants and sea-otters until 1846. On the fifth day of May 1846, Pio Pico, Governor of the Department of California in the name of the Mexican Nation, granted to Don Pedro Carrillo the tract of land that is now known as North Island, Coronado Island and the Silver Strand, consisting of two square leagues. The records indicate that this was a free land grant from the Mexican Government to an individual.

Pedro Carrillo sold his title on the 20th day of October 1846 to Mr. Beeser Simmons, a citizen of the United States, and Captain of the American ship "Magnolia". Mr. Simmons was at that time a resident of the State of Vermont. The purchase price was $1,000 in silver.

On the 28th day of June 1850, Mr. Simmons sold to William H. Aspinwall, one-half of the tract for $10,000, and one-sixteenth to Frederick Billings and Archibald C. Peachy for $5.00. On September 3, 1850, he sold his remaining seven-sixteenths to James Bolton, Frederick Billings and H. W. Hallock for $1.00.

Various transactions of various parts of North Island were made from time to time until in 1872, Charles F. Holly purchased what is known as the island or peninsula of San Diego for $110,850.00. The island or peninsula consisted of North Island, Coronado and the Silver Strand.

June 20, 1877, the entire island or peninsula of San Diego was sold to George Granniss for $116,337.68.

Various other transactions were made until April 16, 1886, when the Coronado Beach Company purchased the entire island or peninsula of San Diego for $100,000. Through the courtesy of the Coronado Beach Company the Government maintained an Aviation School on North Island from November 24, 1912 until final purchase of the island.

TITLE OF NORTH ISLAND TAKEN OVER BY GOVERNMENT

From time to time after 1912, various attempts were made by the Government to secure possession of the island from its owners. The offers of the Government and the price set by the owners varied from two to four million dollars, until finally a bill for condemnation of the entire tract known as North Island by the United States Government was passed by Congress on July 27, 1917, and the United States Government formally took possession in pursuance of Executive Order of the President of the United States on August 7, 1917.

The Coronado Beach was very reluctant to relinquish its possession of this piece of property and during the condemnation proceedings the Beach Company was penalized $500.00 as a result of a request made by the beach Company to dismiss the hearing. This fine was paid in October 1917.

At the time the proceedings started the Coronado Beach Company held the land to be valued at $7,500,000. The jury rendered a verdict on April 21, 1920, and held that $5,000,000. was a fair market value of the whole of North Island and also granted the Beach Company interest on that amount for the time since Government occupancy of the Island, so that on December 30, 1921 Mr. John D. Spreckels was handed a check for $6,098,333.33, as payment in full for North Island, consisting of 2,103.47 acres.

BARLEY CROP ON NORTH ISLAND:

In 1851 a Captain Bogart leased a portion of North Island and sowed a crop of barley but later in the summer when the barley was just beginning to ripen a herd of antelopes came across the Silver Strand from the mainland and ate the entire crop. However, in 1853-4 and 5, Captain Bogart was more successful and reaped three large crops of barley.

FIRST OFFICIAL OCCUPANCY OF SAN DIEGO, CALIFORNIA

On July 29, 1846 Captain S. Y. DuPont in the ship "Cyane" arrived with General Freemont. This marked the first official occupancy of San Diego as an American possession. From that time on for the next ten years American troops were billited in the old mission of San Diego.

SAN DIEGO BARRACKS:

In 1850 a Depot was established by the Quartermaster Department for supplying troops at Fort Yuma. These supplies were transported overland by pack train. The first Government Buildings in San Diego were erected and used for this purpose for two years and in 1851 they were transformed into a barracks and the United States Troops serving in San Diego were quartered in them. These buildings were the first Government buildings in the present city of San Diego. The water problem as usual in San Diego was very serious, accordingly arrangements were made whereby the rain which fell during the winter months was collected from the roofs of the various buildings and run into a central cistern made of stone and adobe. In this way sufficient water was stored to last during the dry season. The buildings were all frame with plates of sheet iron built in between the walls apparently to be used as the protection against attack. This Government reservation was known as the San Diego Barracks and the buildings remained standing until 1922 when they were finally torn down.

FORT ROSECRANS:

By Executive order dated February 26, 1852, part of Point Loma was taken over by the Government and made a military reservation. This reservation was named Fort Rosecrans in honor of General Rosecrans who had done considerable pioneering work in the vicinity. The Government took formal possession on February 28, 1870. Work was started in temporary fortifications on the old site of Fort Guijarros in May 1875. Construction was started on the present site of Fort Rosecrans June 21, 1897.

NORTH ISLAND LEASED FOR PURPOSE OF SELLING WOOD:

On April 1, 1874, D. W. Stone, leased North Island for a period of nine months for the purpose of cutting, removing and selling wood. At this time the lemonade berry or mahogany trees had grown so that the trees were from 10-20 feet in height and had a short stocky trunk from 8-15 inches in diameter. Due to the texture of the wood it was particularly valuable for wood fuel. Curiously enough the fact that there was sufficient wood on North Island to cut seems to have been forgotten until in 1923 when during the leveling of the ground for construction purposes, some of the old stumps were unearthed.

NORTH ISLAND FROM 1870 TO 1910:

During the period from 1870 to 1910 North Island was used for only recreational purposes. A bridle path circling the island was used by guests of the Coronado Hotel for Horse back riding, and from time to time shooting parties were conducted to the island by the hotel management. Quails and rabbits were plentiful due to the rank growth of sage and other classes of brush. Wild oats practically covered all the clear portions of the entire island. On account of the very infrequent visits to the island of these hunters quail, doves, jack rabbits, and gophers were very numerous and thrived profusely.

CHAMBER OF COMMERCE REFUSES TO GRANT LAND:

The limit of fire of the guns used in sea coast defense during that period made it imperative that the Government possess land on both sides of the channel. On July 11, 1890, Secretary of War Proctor made a suggestion to the Chamber of Commerce of San Diego that the city give to the Government for fortification purposes all of North Island. This request was rejected by the Chamber of Commerce.

CONSTRUCTION OF JETTY:

On April 15, 1893, 18.05 acres of land on the southwest corner of North Island was condemned by the United States Government. The cost of this land was approximately $10,000.00. From this property a jetty was constructed for the purpose of maintaining an open channel into San Diego Harbor. The jetty was made by driving piles and then sinking willow mattresses weighted with rocks between the piles. The construction of the jetty was started in 1894 and completed several years later. The jetty cost about $500,000 and extends due south for a distance of 7,500 feet.

FORT PIO PICO:

In 1901 an additional 38.56 acres, approximate sale price $20,456.08, known as Zuniga Shoal Tract adjacent to the jetty reservation was condemned for the purpose of establishing a coast defense fort. This fort was named Fort Pio Pico in honor of Governor Pio Pico. A battery of two three-inch 15 pounder model 1903 was installed in 1904. The battery was named "Battery James Mead", in honor of Captain James Mead, 17th U. S. Infantry, who was killed in action at Frenchtown, Michigan, on January 22, 1913.

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PART III

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NORTH ISLAND CRADLE OF ARMY AVIATION:

In 1909 and 1910 aviation in the United States was getting its first start. As man had a limited knowledge of aviation in general, it was believed to be necessary for aviators to do their flying in the early morning and late in the evening when the wind velocity was at its minimum. Accordingly, it was but natural then that the early pioneers should endeavor to locate a place where the average wind velocity was low, in order that the experiments might be continued throughout the day.

GLENN CURTIS SCHOOL:

In 1910 Glenn Curtiss with his exhibition team arrived at San Diego, California, and gave an exhibition and was so impressed with the climatic conditions that after making formal request he was granted the use of North Island for a period of three years from February 2, 1911, with the privilege of establishing an aviation school and erecting the necessary plant for conducting it. The owners of North Island granted Mr. Curtiss these privileges free of any charge or obligations. This school was established and three buildings constructed for shops and hangers. The Curtiss School had a maximum of about three airplanes for service at this school.

SCHOOL AT COLLEGE PARK MD:

At the same time the Army Air Service was operating a school at College Park Maryland. The weather conditions in the vicinity of Washington, D. C. however, made it impossible to have an all-year round school. Accordingly, it was necessary to move the school south in the winter and back to College Park in the summer. This made a very expensive and unsatisfactory program, especially so on account of the very limited appropriations which were made by Congress for the Signal Corps

of the Army under which the Air Service was at that time operating.

1 9 1 2

SURVEY MADE OF UNITED STATES TO LOCATE FLYING FIELD:

In the early fall of 1912, a survey was made of the entire United States with a view of locating a spot where there would be a minimum temperature variation and which at the same time would have a very low wind velocity. The weather reports of all the large cities in the United States were studied very carefully and finally the data placed on a map. A line was drawn from the Atlantic to the Pacific, south of which the average temperature during the winter months was over 38 degrees Fahrenheit. This line extended through Virginia, Kentucky, Arkansas, Oklahoma, Texas, New Mexico and across Southern Arizona and California and then turned north through California, Oregon and Washington to the Pacific. The wind velocities of the various towns showed that the South Atlantic States had an average wind velocity of 10 to 12 miles an hour; Texas had an average wind velocity of 10 to 12 miles an hour. In the Western part of the United States the wind velocity became less. Phoenix, Arizona has an average of 4.1 miles an hour, Los Angeles, California 4.4 miles and San Diego, California 5.6.

LOCATING SITE FOR GLYING FIELD:

After locating the approximate region for this school, the next step was to locate a site where a field could be established with the minimum expense. Phoenix was out of the question, due to its limited facilities and extremely hot summer months. Los Angeles would have been the next choice but there was no ground in the immediate vicinity of the city which was available at once for occupancy. San Diego was the third choice and it was also known that Glenn Curtiss had already established a school on

North Island. This made it possible to start an aviation school at once without any preliminary ground clearing.

FIRST ARMY DETACHMENT ON NORTH ISLAND:

At this time due to conditions on the Mexican Border the entire aviation personnel had been sent out from College Park, Maryland, to Texas City, Texas, so plans were made for attaching a small group of officers and enlisted men to the Curtiss School at North Island for instruction purposes, and at the samt time to build up an aviation school for the Army with the consent of the owners of the Island. There were no facilities for quartering or messing the first detachment when it arrived, so it was planned to have them quartered and mess with the garrison at Fort Rosecrans. The first detachment consisted of Sergeant James Hartman, Signal Corps, in charge of eight enlisted men. This detachment arrived at Fort Rosecrans on November 4, 1912. As usually is the case when a small detachment is thrust upon a garrison for quarters and rations, difficulties arose, so that the sergeant in charge took matters in his own hands and borrowing a row boat from some source, rowed over to North Island and established his own camp. He made arrangements for messing his detachment with a lunch room in San Diego. This move to North Island, the first occupancy of the island by government troops, was made on Thanksgiving Day, 1912. Some two weeks later the detachment commander, Lieut. H. Geiger, Signal Corps, arrived and took command of the detachment.

The detachment at this time consisted of Lieut. H. Geiger, commanding, Sergeant James Hartment, Corporal Howard Rice, Corporal Arthur Mix, Private 1st class Calvin Erdman, Private 1st Class Philip Kilmer, Private Charles Forrest, Private Bernard Newey and Private Ralph Hoffman.

The original detachment at North Island was too small to do anything other than establish a camp and clear a runway for airplane landings, so that additional personnel was sent out from Texas City, Texas, in two detachments as follows: Captain Reasoner, Medical Corps; Lieut. J. D. Park; Lieut. Samuel H. McCleary; Lieut. Louis Brereton; Lieut. L. E. Goodier; Lieut. Rex Chandler; Lieut. H. B. Post; Lieut. J. E. Carberry; Lieut. W. R. Taliaferro and ten enlisted Signal Corps men.

FIRST AIRPLANES AND FIRST FLIGHT:

The first airplanes were forwarded to North Island from College Park, Maryland, and were received about the 15th day of December 1912. These two airplanes were a 60 horsepower single seater Curtiss and a 40 horsepower single seater instruction plane.

The first flight made on North Island by Army personnel was by Lieut. L. E. Goodier, on October 10, 1912.

CANVAS HANGERS ERECTED:

A camp was established at the north end of North Island and the dock already constructed by the Spreckels Company was used for landing purposes, i.e. passengers and freight. Several years previous the Spreckels Company had built near this site a dry dock but its activities were confined to the beach in the immediate vicinity of the plant. Tents were erected and canvas hangers used to house the airplanes. The number of airplanes was increased from time to time by shipments from the Wright Company in Dayton, Ohio, the Curtiss Company at Hammondsport, New York, and from the Aviation Detachment at Texas City, Texas.

ACCIDENTS:

On February 18, 1913, the first accident occured in which 1st Lieut. L. E. Googier was seriously injured in attempting to turn while too close to the water in a flying boat.

On April 8, 1913, the first fatal accident occured at San Diego in which 2nd Lieut. Rex Chandler, Coast Artillery Corps, was killed after falling into the bay.

On May 9, 1913, Lieut. J. D. Park was killed while flying a Curtiss machine on a cross country flight over the islands.

On November 24, 1913, the death list due to aviation accidents was further increased by the deaths of Lieut. E. L. Ellington, Cavalry, and Lieut. H. M. Kelly, Infantry.

TYPE OF AIRPLANES USED:

A study of the accidents which had occured up to this time indicated that probably they would not have been so serious had a tractor type of airplane been used. Up to this date the majority of planes used by the Army were the pusher type, in which the engine was in the rear of the pilot and passenger, and in case of bad landings, the engine was knocked loose from its supports and then fell on the occupants of the machine. Accordingly steps were taken to change as soon as planes became available, from the pusher type to the tractor type, in which the engine was in front of the occupants and in case of bad landing would not be in a position to cause additional injuries.

CIVILIAN INSTRUCTORS:

In the method of instruction in use at this time qualified officer pilots were used as instructors, but due to the number of

accidents occurring in such a short time there was considerable agitation among the high ranking officers of the Army toward requiring civilian instructors to be used at the aviation school.

AMERICAN AND WORLD'S RECORDS ACHEIVED IN 1913:

On March 28, 1913, Lieut. T. D. Milling, created a new world record for two people in an airplane by remaining in the air for four hours and 22 minutes in a Burgess airplane of the tractor type, equiped with a 70 horsepower engine. (Renault)

CHANGE OF COMMAND 1913:

In June 1913, Special Orders No. 131, War Department, ordered Captain Arthur S. Cowan, Signal Corps, to proceed from Texas City, Texas, to San Diego, California, and take command of the aviation school.

THE SCHOOL INCREASES:

By the end of June 1913, the aviation school at San Diego had increased until it consisted of 18 officers, two of whom had qualified as military aviators; six were flying solo, and eight were already well advanced on the dual stage. The number of airplanes had increased to four Wright-B 30 horsepower (training), One Wright-C 50 horsepower (advanced training and observation), one Curtiss 40 horsepower (training), two Curtiss 60 horsepower (Observation) and one Curtiss flying boat.

DETACHMENT LEAVES FOR HONOLULU:

During the summer of 1913 a detachment of the Signal Corps with Lieut. H. H. Geiger, left San Diego to establish an aviation station in Honolulu.

JAKE BAILEY REPORTS FOR DUTY:

On August 20, 1913, Jake Bailey reported for duty as civilian mechanic. His reporting is of special importance as due to his knowledge of gasoline engines he was responsible for their continued improvement.

METHODS OF INSTRUCTION:

At this time throughout aviation circles in the United States there were two distinct methods of instruction; one commonly known as the "Wright Method" in which dual control airplanes were used, the instructor and pupil riding side by side until such times as the student could pilot his machine himself, -the other, the "Curtiss Method", in which the student hopped his machine across the ground until he became acquainted with the controls and then gradually extended the lengths of the hops until he could make partial turns and complete turns and ending up with circles. Finally he progressed to such an extent that he could pilot the plane by himself.

COMPETITION:

Each system had its advocates, and these advocates were so sincere with regard to the advantages of the different methods that two separate and distinct camps grew up in the aviation school known as the "Curtiss Camp" and the "Wright Camp". Competition between these two camps became very keen and finally developed to such an extent that it became dangerous. The exponents of each camp tried to demonstrate in the air the advantages of his particular method of instruction and that the airplane he was flying was so much superior than the other type of airplane. As new students arrived at the school each camp endeavored to persuade the student that his particular method of instruction and machine was far better than the others. This competition was at first beneficial but later became very detrimental to the smooth running and efficiency of the school.

DETACHMENT FROM TEXAS CITY ARRIVES:

In October 1913 the last of the detachment, Signal Corps on aviation duty at Texas City, Texas, left for San Diego bringing with them all their airplanes and supplies which had been used at that place.

MILITARY AVIATORS:

In November 1913, the instruction of the students at the school had progressed so that there were twelve officers on duty at the school who had qualified as Military Aviators. Five qualified Military Aviators had been relieved from their duties and sent back to other regiments, one Military Aviator had been killed in an airplane accident and five others were ready to take the Military Aviators' test.

AVIATION SCHOOL IS NAMED:

In November 1913, the detachment at North Island was definitely named and designated as the "Signal Corps Aviation School, San Diego", by War Department order.

MACKAY TROPHY:

On December 29, 1913, the contest for the Mackay Trophy was conducted with Lieutenants W. R. Taliaferro as pilot, H. LeR. Muller as observer, and Lieutenants J. E. Carberry as pilot, and Fred Seydel as observer, as contestants. The test was made at Encinitas, California. The rules required that participants fly to a given triangle 10 miles on each side, locate and unknown number of troops and submit a written report showing the number of troops with their location. The trophy was won by Lieut. J. E. Carberry with a total of 290 points out of a possible 300.

CIVILIAN INSTRUCTOR:

On December 26, 1913 Mr. Oscar Brindley, arrived at San Diego for duty as civilian instructor.

ALTITUDE RECORD ESTABLISHED:

On December 26, 1913, Lieutenants Carberry and Taliaferro established a new American altitude record for pilot and passenger reaching an altitude of 7,000 feet.

CURTISS HANGERS LEASED:

Up to the end of the year 1913, the airplanes together with machinery and tools for the maintenance of the Curtiss Camp were housed in hangers leased from the Curtiss Company for $25.00 per month or in canvas hangers, no buildings having been constructed of a permanent or semi-permanent nature. Such repair facilities as the Curtiss Company had in their school were made available for use by the Government and this was of very material assistance in maintaining the Government airplanes in serviceable condition.

It is to be noted here at that time two now prominent, San Diego business men were connected with the Curtiss School at North Island as instructor pilots. These were Mr. Raymond V. Morris and Mr. Theodore C. Macaulay, both of whom as pioneer aviators, had succeeded in becoming well known throughout the United States by reason of having broken and created world's aviation records and their all around good flying.

1914

TEMPORARY CONSTRUCTION:

Druing the months of November 1913, and January and February 1914, a total of $3,200 was allotted from Washington for the purpose of erecting temporary buildings for the shelter of airplanes and construction of a machine shop. The hangar construction resulting from this allotment provided sufficient shelter to house the airplanes then available for operation at the Aviation school. These buildings were erected on the north end of the island in a semi-circle to conform to the shore line of the island. In January 1914, the Coronado Beach Company, who were the owners of North Island gave permission to the Commanding Officer of the Signal Corps Aviation School for new construction as follows:

"For the maintenance and erection of such frame structures of a temporary nature as may be necessary, for the purposes in connection with the maintenance of the camp and aero squadron and operation of airplanes owned by the United States Government upon the condition that the United States Government will vacate said premises and remove all such structures so erected and maintained, and that the giving of this permission shall in no way be interpreted, construed as conferring any permanent right in or to the land of said North Island, or any part thereof."

CURTISS AND WRIGHT SCHOOLS CONSOLIDATED:

By this time the rivalry between the Curtiss and Wright sections of the school had passed beyond a friendly stage and had become so intense that it was imperative that a change be made. Accordingly during the month of February 1914, the Wright and Curtiss sections of the School were consolidated. This rivalry between the two sections had been accentuated due to the fact that the Curtiss section was closely connected with the Curtiss Airplane Company and the officer students received their preliminary training in Curtiss airplanes belonging to the Curtiss Company. T. C. Macaulay, now Major, Air Service Officers' Reserve Corps, was at that time in charge of the training for the Curtiss Company, and it was due to his cooperation and generosity that a considerable amount of the aerial training of regular officers was made possible. However, in order that the Government would not be under obligations whatsoever to the Curtiss Company, all airplanes housed in Curtiss hangars were taken to the Government end of the island and in addition all further instructions under the Curtiss Company was stopped. Soon after this the Curtiss Company stopped active operations and removed its equipment from North Island.

PROMINENT OFFICERS WHO RECEIVED THEIR TRAINING AT THE SCHOOL:

The officers who at this time were in charge of aviation or who joined the permanent school staff or were under training at the Aviation School later

became the back-bone around which the entire present Air Service of the Army was constructed. These officers were daily receiving their instructions or acting as instructors and from time to time demonstrated their ability and knowledge by breaking and creating American and World's endurance records. Among the most prominent of these were Captain B. D. Foulois; Lieut. T. F. Dodd; Lieut. L. E. Goodier; Lieut. H. L. Muller; Lieut. W. R. Taliaferro; Lieut. J. E. Carberry; Lieut; Don Metherwood; Lieut. C. Chapman; Lieut. B. Q. Jones; Lieut. T. D. Milling; Lieut. Roy C. Kirtland; Lieut. H. A. Dargue; Lieut. V. E. Clark; Lieut. W. C. Sherman; Lieut. H. H. Arnold; and Lieut. L. H. Brereton.

NEW RECORD CREATED:

On February 14, 1914, Lieut. T. F. Dodd with Sergeant Marcus as passenger, completed a cross country flight of 246 miles in 4 hours and 43 minutes, creating an American record.

On February 9, 1914 Lieut. H. B. Post, while endeavoring to create an altitude record lost control of his machine and was killed.

PUSHER TYPE AIRPLANES CONDEMNED:

In connection with the death of Lieut. Post it is to be noticed that a majority of deaths up to this might have been said to have been due to the Pusher type of airplane being used. In a bad landing the engine being in the rear of the occupants of the machine fell on them and crushed them to death. After the report of the board on Lieut. Post's accident, all Pusher type airplanes were condemned. This resulted in there only being two airplanes for service at the Aviation School., they were two Burgess tractors, three under repair which would make a total of five airplanes available for the school. For the first time the school found itself with more hangar space than there were machines available. By March of 1914

construction of wooden hangars for 12 machines and in addition a machine shop had been completed.

CIVILIAN MECHANICS EMPLOYED:

It also became evident that a permanent staff of qualified experienced mechanics must be present at the school in order to provide a nucleus around which a corps of enlisted instructors would be built. Accordingly three civilian mechanics were employed for duty in the machine shop.

BOMB DROPPING:

In April 1914 the first regular and continuous experiments in bomb dropping in the world were conducted. Mr. R. C. Scott, formerly an officer in the United States Army, had developed a bomb dropping device by which it was possible to drop bombs with at least partial mechanical precision. During his test in April he made four hits out of five shots from the altitude of 800 feet, -this considering the advance of aviation at that time was a very creditable performance. Lieut. T. F. Dodd was pilot of the airplane during the tests.

ALLOTMENTS FOR FISCAL YEAR 1914:

The total money allotted the Aviation School for the fiscal year 1914-15 was as follows:-

Local purchase of supplies	$7,200.00
Payment of civilian employees	7,645.00
Incidental expenses	138.00
Total	$14,983.00

Civilian personnel was increased during the latter part of the year by one clerk; one aeronautical engineer, Mr. Grover C. Loening; one civilian instructor, Mr. Francis A. Wildman, and six civilian mechanics. Eight new airplanes were received and one was so badly damaged that it could not be rebuilt.

MARINES STATIONED ON NORTH ISLAND:

On July 5, 1914, the 4th Regiment of United States Marines under command of Colonel J. Pendleton, arrived in San Diego from the coast of Mexico on the S. S. "South Dakota", "Jupiter", and "West Virginia". This regiment had been on duty on the Mexican Coast from Acapulca to Guaymas for about three months. After arriving in San Diego they went into camp on North Island. Their presence on North Island assisted materially in construction work and maintaining proper police of the occupied portion of the island. The repaired and practically rebuilt the little landing wharf, cleaned ground for parading and drill purposes, built a board walk from the wharf to the camp, and in other ways were of material benefit to the small garrison of Signal Corps occupying this land. The camp was called "Camp Howard" in honor of Rear Admiral Thomas Benton Howard, who at the time commanded the Pacific Fleet. On December 22, 1914, the camp was broken up and the regiment of Marines departed.

OFFICIAL CALL PAID IN FLYING BOAT:

On September 17, 1914, the commanding officer of the Signal Corps Aviation School. Captain S. Cowan, paid the first official call ever made using a flying boat as means of transportation. On this occasion the U. S. S. "San Diego" was in the harbor and a ceremony was being held in connection with the re-christening of this ship formerly called the U. S. S. " California". The flying boat left the hangar at North Island shortly before 10 o'clock, flew out to the ship, circled around twice then landed on the water and ran up to the gangway. The commanding officer paid his respects to the Commanding officer of the ship and then returned to North Island in his flying boat.

ALTITUDE RECORD CREATED:

On October 8, 1914, a new American altitude record was created when Lieut. H. L. Muller in a Curtiss type J tractor reached an altitude of 17,441 feet.

MACY AUTOMATIC STABILIZER:

Up to this time the exact cause of airplane accidents had been more or less of a mystery but it was believed that most of them were due to the planes taking unusual positions in the air and the pilots being unable to bring them back to an even keel. Various inventors throughout the country were giving considerable amount of thought toward manufacturing a stabilizer device to prevent airplanes from assuming such unusual positions and thus eliminate possibilities of accidents. One of these devices was sent to the San Diego Aviation School for test. It was known as the Macy Automatic Stabilizer and was the first of its kind ever tested by the Government. Tests of this device were made during the months of November and December.

TESTING OF AIRPLANE FOR ACCEPTANCE:

On November 5, 1914 while testing an airplane for acceptance by the Government, Mr. Glen L. Martin, the builder and pilot of the plane, and Lieut. L. E. Goodier as passenger, suffered serious injuries when the plane crashed to the ground.

MACKAY TROPHY 1914

On December 23, 1914, the Mackay Trophy contest was conducted starting from Los Angeles, California. The officers selected for pilots and for this test were Captain Harold Geiger; Lieut. H. L. Muller; Lieut. T. F. Dodd; Lieut. W. R. Taliaferro; Lieut. T. D. Millings; Lieut. Joseph C. Morrow and Lieut. J. E. Carberry. Troops used during this contest were a battalion of Marines which marched from San Diego to La Mesa; a battalion of Coast Artillery men which

marched from San Ysidro to Otay Reservoir to La Mesa. The trophy was won by Captain T. F. Dodd, pilot, and Lieut. S. W. Fitzgerald, as observer, as they were the only ones who completed the test; all other machines having had difficulty en route which caused forced landings.

On December 21, 1914, in connection with the contest for the Mackay Trophy, a plane piloted by Lieut. H. L. Muller, with Lieut. Gerstner as passenger, landed off the ocean of Arguello, California, and Lieut. Gerstner while swimming to shore was drowned when he became entangled in kelp. Captain Muller remained with the plane and was saved.

BURGESS-DUNNE AIRPLANE:

Ever since they purchased the first Wright airplane in 1908 the policy of the Signal Corps was to require all airplanes to satisfactorily complete a performance test. Accordingly during the year of 1914 all airplanes purchased were given a performance test, the requirements of which were based on the use which was to be made of the plane. One of the airplane tests was so unique in character that a general description will be given at this point. It was called the Burgess-Dunne airplane. It was unique in that the two main planes formed the letter "V" with the motor and pilot in a nacelle at the center of the "V". This plane was equipped with a 200 horsepower Salmson engine and carried a total useful load of 561 pounds. It was calimed that this airplane was inherently stable and tests were made accordingly. The performance of the machine in tests was about as follows:

> With the motor wide open and the elevator pulled back as far as possible, the airplane took a very steep climbing position and then settled, nosed over into normal gliding angle, and

then again assumed a step climbing angle. With the control lever held in natural position for normal flying position and with the throttle opened wide the machine assumed a natural flying angle. With the motor completely throttled and the elevators levers pulled back as far as possible the machine rose, settled, and as soon as sufficient speed had been picked up again went into a climbing angle. These maneuvers were continued as long as the pilot had sufficient altitude to keep from hitting the ground. The machine was truly inherently stable but unfortunately was so very slow in answering controls that it was not practicable.

LOCATING MINES:

At various times during the year tests were made to determine the visibility of various mines lying in the channel adjacent to North Island. From these tests it was determined that from an altitude of about 2,000 feet the bottom of the channel could be clearly seen and any articles such as cans, boxes or mines above the mud could be easily distinguished. The mines used had been planted for some time and were coated with a yellowish green growth but were picked up never the less.

DIFFICULTIES OVERCOME IN 1914:

The year 1914 was a serious one for the Aviation School in that many conditions arose which obstructed its progress. The most serious of these were the questions of type of airplanes, dissension in the school between the advocates of the various types of machines, and the very small number of airplanes available for instruction. These problems however were successfully solved and the new year found a systematic course of instruction adopted, more airplanes available for instruction purposes than ever before, and sufficient

additional civilian personnel to provide continuous instruction for the military students, both officers and enlisted men.

FLIGHT RECORDS 1914:

The number of flights made during the period June 1914 to December 1914 averaged about 250 per month; the maximum for any month of that six months being about 355. The average time in the air was 75 hours per month. The greatest number of hours flown for one month being 121 in December.

ADDITIONAL OFFICERS:

During that six months additional officers reported for duty whose names have since become known throughout the United States due to their varied connections with aviation. Lieut. Leslie MacDill; Lieut. S. W. Fitzgerald; Lieut. W. G. Kilner; Lieut. Ira Rader; Lieut. Edgar Gorrell; Lieut. Henry W. Harms.

ORGANIZATION OF THE SCHOOL IN 1914:

At the end of 1914, the Aviation School was organized as follows:

Headquarters:

Commanding Officer	- Captain A. S. Cowan,
Secretary	- Lieut. William Lay Patterson,
Assistant Secretary	- Lieut. E. S. Gorrell,

Supply Section:

Lieut. Roe C. Kirtland	In charge, later
Lieut. Irwin Madison	

Engineering Section:

Motor Overhaul Section	- Mr. G. C. Loening,
Officer in Charge	- 2nd Lieut. Douglas Netherwood,

Training Department:

Officer in Charge	- Lieut. Taliaferro;

Under the training department were the Airplane and Engine Repair Sections and the School Section. The school section gave

theoretical and practical training in airplanes and engines and was under Mr. George E. A. Hallett.

MEDICAL DUTIES:

Apparently due to the shortage of medical personnel in the Army at this time there was no regular Army medical officer on duty at this school. The duties of medical officer were performed by Doctor George B. Worthington of San Diego who was a reserve officer and had been placed on active duty for this purpose.

1915

CONSTRUCTION OF ADDITIONAL HANGARS:

In January 1915 money was allotted for two additional hangars for storage of sea-planes. The erection of these hangars was completed during the month of February 1915.

ELECTRIC GENERATING SET:

The only source of electricity for light and power for the Aviation School was the regularly established city line in San Diego, and, as use of this power required the laying of power lines across the bay, the expense was considerably more than the limited appropriation of the Air Service could meet. Accordingly in February 1915, a 10 K-W gasoline electric generating set was purchased for light and power, this set furnished sufficient power to drive all power machinery installed in the various parts of the school.

FIRST REGULATIONS PUBLISHED:

Since there was not sufficient experience in the Air Service to formulate any operating regulations prior to 1915 all programs for instruction and training of officers and enlisted men, rules and regulations for repair of airplanes and engines, had to be worked out as the various problems arose. Hence in the operation of the Aviation School, due to this lack of precedent, cut and dry methods had to be used in developing policies for training of

personnel and for maintenance of equipment. The first regulations governing the administrations of the Signal Corps Aviation School to be published was circulated as General Orders No. 1, in January 1915. A few of the most striking provisions of this order will be quoted here:

> "Officers will be permitted to live either in San Diego, Coronado, or on North Island."

As an after thought an ammendment was was made:

> "Student officers will live on the island".

Another interesting paragraph reads as follows:

> "Dogs without collars and muzzles will be shot".

Apparently there was some foundation for the slurs the line officers directed against the Air Service Officers for wearing spurs, for paragraph 27 states:

> "Horses will be tied on the picket line provided for private mounts and not to trees, fences, water pipes or buildings."

Another interesting paragraph indicates that the aviator officers were not permitted to utilize all their spare time in enjoying themselves. First part of paragraph 29 states:

> "Officers will be required to devote a minimum of six hours per week to professional study or reading."

The actual training of pilots had advanced to such a state that it was possible to prescribe rules and regulations for their instruction and in addition it was possible to notify prospective students as to the conditions they would meet upon arriving at the school.

Prospective students were furnished a typewrittenmemorandum in which detailed information and a considerable amount of instructions for prospective students was issued from the school with a view to guiding the prospective student in his program for work to be undertaken. A few of the most interesting items are quoted:

"Do not enter this branch of the Army lured by hopes of higher pay." "Expenses are high and there is no use trying to conceal this fact."

"Before you come into aviation you should prepare yourself to expect a lot of work in the day time and plenty of study at night. True, there is time for play as well as work."

It was apparently recognized that a man had to be in first class condition before attempting to qualify as a pilot. This is indicated as follows:

"Above all if you are not physically fit for this, the strictest kind of service, in which you are under a constant strain, do not conceal this fact from the doctor who examines you but make a clean breast of it."

A few pertinent remarks made to help form the attitude of the student toward his work:

"If you hate work, don't take up aviation."

"If you cannot deliver the goods in your own branch, you cannot expect to do so here, so don't take up aviation."

"If you are the sort of person who likes to keep his hands clean, don't take up aviation."

"If you are not highly efficient, do not take up aviation."

"If you are a bluffer, don't take aviation, you cannot expect to bluff the atmosphere."

"If you expect to be married soon or are in love, don't take up aviation."

"If you expect an easy time, don't take up aviation."

"You are not wanted in the Aviation Section unless you are a highly efficient officer."

ALTITUDE AND ENDURANCE RECORDS:
ESTABLISHED:

The officers on duty who had qualified as pilots were again demonstrating the fact that they were the equals of any pilots in the United States, by breaking existing records. On January 5, 1915, Lieut. J. E. Carberry with

Lieut. R. E. Christy as passenger, established a new American altitude record for pilot and passenger reaching an altitude of 11, 690 feet.

On January 5, 1915, Lieut. B. Q. Jones established a new American endurance record by making a continuous flight of 8 hours and 50 minutes. These flights were made in standard training planes which were being used at the school. However it is to be noted that the number of planes available for training was still short of the number required for the students. This was in part due to the fact that all Pusher type planes had been condemned. and only tractor type planes were being used.

CURTISS PLANES:

By January 15th the Wright type control had been eliminated and all tractors were equipped with a Curtiss type control. Eight Curtiss airplanes had been ordered in the preceding fall and were expected to be delivered some time in the early spring. This it was thought would solve the shortage of planes. It is interesting to note, however, that at this time it was thought advisable to assign two pilots to every airplane, as it was believed the airplane would outwear the pilot. The absurdity of such a policy was demonstrated by the school in its operations from that time on as there were always students waiting for a plane in which to fly.

The old airplanes which had been in use for some time were being redesigned by the engineer in charge of the Repair department, but the small knowledge which aviation experts in general had regarding the science of aviation is to be noted by the fact that in order to cure nose-heaviness in an airplane it was the practice to carry anywhere from 15 to 20 pounds of shot in the tail of the fuselage. However, one of the planes reconditioned at this field had sufficiently good performance to establish a new world's record.

Lieut. B. Q. Jones with Corporals Hale and Howser as passengers, on March 12th, established a new world's record for pilot and two passengers by remaining in flight for 7 hours and 5 minutes.

RADIO SET:

As the school on North Island was at this time the only existing aviation station where sufficient personnel and material were available for making tests, all new instruments and accessories for airplanes were tested and demonstrated by the personnel at this station. Among the instruments and accessories tested and developed was an airplane radio set. The generator for this set was at first driven by a chain from the engine but later this was changed to a gear drive. These tests were made during the years 1914 - 1915.

MACY STABILIZER:

The Macy Stabilizer was given a thorough test during 1914-1915 and the board reporting on it stated in its findings:

(1) That the principle of the stablizer was good,

(2) That the instrument did keep the machine balanced laterally,

(3) That moderate turns could be made by the operator using the rudder wheel alone, allowing the stabilizer to put the machine into requisite bank which it did correctly.

(4) That the principle of the stabilizer was sound but the one submitted for test was crude from a standpoint of mechanical construction.

It is to be noted in this connection, however, although the stabilizer was found to be correct in principle and action, the pilots themselves were not willing at this time to transfer the actual control of the airplane over to a mechanical device and no further use or tests were recommended.

FIRST AERO SQUADRON:

Although in 1915 there was a detachment of the Air Service operating in Honolulu there were no operating Air Service units in existance for field

service and no regulations laid down which prescribed the operation of such a unit. General Orders No. 75, War Department 1913, prescribed the organization of a squadron but in view of the fact that no unit had ever been organized under this order, the order itself was bound to be defective. The nucleus of the 1st Aero Squadron was gotten together in August, 1914, and the organization completed by December 1914. Captain B. D. Foulois was placed in command.

In order to fully appreciate the difficulties in connection with the proper organization of this squadron, it is to be noted that this was the first Air Service operating unit of any kind ever organized in compliance with War Department regulations in the United States.

The question now arose for the first time as to whether a flying officer of limited administrative experience in the Army should be placed in command of such a squadron. It is also to be noted, however, that this question had not been satisfactorily solved even several years later. After the organization of the 1st Aero Squadron in San Diego had been completed with full complement of officers and enlisted men assigned to it, the organization of additional squadrons was at once undertaken. This in spite of the fact that the first squadron had not at this time received its full complement of airplanes and motor transportation.

PROCEDURE IN HANGARS OF AIRPLANE CREWS:

During 1914-15 special emphasis was laid on the method of inspection of airplanes and the amount of work required. Reveille was about a half-hour before daylight. This enabled officers and enlisted men to be on the field for work as soon as it was light. Machines were removed from the hangars under the supervision of the officers. The necessity for thorough inspection

was emphasized. Each machine was carefully inspected by the non-commissioned officer assigned to that machine and a separate inspection made by the chief instructor for that section of the school. In other words, the machine was inspected by three different people before it was taken into the air.

Details as to how the first flights of the airplane were to be made each day were given. For instruction work the instructor first took the machine in the air for a short flight in order to assure himself that it was in good working order. He then came back and took up a student officer with him for instruction. The officers who finally passed the preliminary instruction stage were allowed to fly alone, received instructions from the chief instructor regarding the elevation, duration of the flight they were to make, and any other natures such as making turns, gliding to the ground without power, etc. The instructor also gave orders as to the length of each flight.

As a general rule flying was continued until 10 or 11 o'clock, the machines were then returned to the hangars, carefully gone over by the officers and enlisted men, and the motor and other parts of the machines carefully cleaned up. By this time it was necessary for the enlisted men to return to their barracks for the noon day meal. In the afternoon, beginning at one o'clock, under the supervision of officers in charge of the machines, the repair work was carried on. There was generally something to do on each machine each day. Wires had to be replaced, struts or skids repaired, minor adjustments and repairs made to the motors, and in all this work an effort was made to impart as much information to the officers and enlisted men as possible. In other words, advantage was taken of these needed repairs to give officers and enlisted men on this duty practical instruction in the care and repair of machines.

Apparently Congressional parties started inspection of the aviation establishment on North Island at a very early date, for on July 7, 1915, a Congressional party which included many members of the House Appropriation Committee visited and inspected the Aviation School. They were each given a ride and seemed very much interested in the work which was attempted at the school. Other influential people found it convenient to inspect the school. A General Officer visited the school the week following the Congressional party. He was followed very shortly by a Senator who enjoyed a ride in one of the Army airplanes. It is to be noted, however, that the General did not take a ride.

THE NAVY:

Starting early, good use was apparently made of the Navy, for the Commanding officer of the school transferred two White motor trucks to the U. S. S. "Glacier" and in a comment on the transfer stated "Our blessings would have been increased had we been ordered to turn over all four of our White trucks."

HANGAR CONSTRUCTED FOR BURGESS-DUNNE PLANES:

A new hangar was undertaken and completed during the month of June, 1915. This hangar was specially constructed for the Burgess-Dunne airplane. It is stated in the report "that the machine had already demonstrated its value while working in connection with the Coast Artillery."

VERY PISTOLS:

Experiments were made with Very Pistols with a view of determining their value in connection with signaling from airplanes in the air to observers on the ground.

END OF FISCAL YEAR 1914-1915:

June 30, 1915, found a total of 30 officers, 12 civilians and 185 enlisted men on duty at the school. There were available for instruction purposes, 13 airplanes. The amount of flying done had increased from 250 flights in the preceding July to 450 in June. The number of hours in the air from 56 hours in the preceding July to 174 in June.

WORK ACCOMPLISHED DURING FISCAL YEAR 1914-1915:

During the year a portable machine shop had been designed and constructed at the school for the use of the squadron. This work was done almost entirely by the officers and enlisted men in the machine shop. Sixty-nine engines had been overhauled, several of them being almost completely rebuilt. This together with the making of fittingsand spare parts for the rebuilt. This together with the making of fittingsand spare parts for the rebuilt planes; the designing and building of a stand for testing and balancing airplane propellors; conducting tests for lubricating oils; designing and construction of a fixture for testing radiators under air pressure, was the major work carried out in the machine shop. The work was carried on with the regular complement of officers and enlisted men, and in addition, such officers and enlisted men who were not assigned to the machine shop for instruction.

In the Engineering Department, Mr. G. C. Loening, in charge, conducted all experimental work, the development of all new features in the construction of airplanes, and in addition made all major repairs to the airplanes.

PLANE CONSTRUCTED AT THE SCHOOL:

It is interesting to note at this point that none of the training planes which had been furnished by the various factories were found to be entirely satisfactory. Hence an attempt was made to construct an airplane at the school which would have the performance desired. An old airplane was taken

and completely torn down and from it a new type was contructed. However, the important principle that it takes more than desire and a medium amount of intelligence to build an airplane was completely demonstrated. The plane as produced was a distinct disappointment from the start for, although it had the flying qualities desired, the system of controls was entirely inadequate and not satisfactory. Several attempts were made to correct these defects but without success and it was finally destroyed.

SQUADRON INSTRUCTION:

From January to June 1915, the 1st Aero Squadron was engaged in securing its camp and garrison equipage and personnel equipment. The personnel was given such military instruction as could be given without interferring with the instruction carried on at the school, in addition a regular system of instruction in airplanes and motors was given to both officers and enlisted men. Ten special type truck bodies were designed and constructed. A special portable kitchen field range was drawn up and plans made for its construction, and a tent hangar designed for use on the field, construction of which was let out by contract to a local firm in San Diego.

PARACHUTE JUMP:

On July 4, 1915, civilian instructor Oscar Brindley, with Miss Tiny Broadwick, flew over the exposition where Miss Broadwick jumped with her paraclute and landed just outside the exposition grounds. This performance was repeated on July 5th.

FIRST AIR SERVICE OFFICER TO GRADUATE FROM M.I.T.

On July 6th, Captain V. E. Clark, who was the first Air Service Officer to graduate from the Massachusetts Institute of Technology as a Doctor of Aeronautical Engineering, arrived for duty and was assigned to the E. & R. Department.

REBER BOARD TO SELECT PERMANENT AVIATION SITE:

On July 15, 1915, Colonel Samuel Reber, with Captain R. C. Marshall, arrived to inspect the terrain in the vicinity of San Diego with a view of choosing a permanent site for the aviation school. Colonel Reber's visit was made in compliance with an Act of Congress which authorized $1,000 for a commission of not more than three officers to report upon the advisability of the acquirement by the United States Government of land near the bay of San Diego or elsewhere on the Gulf and Atlantic-Pacific Coasts for an aviation school. Colonel Reber in his report recommended as follows:

1st: The terrain in the vicinity of San Diego fulfills geographically, climatologically and topographically conditions better than any other section of the United States. Five sites are available on San Diego Bay.

His recommendations as to the desirability of the site were as follows:

1st: North Island
2nd: Coronado Heights
3rd: Chula Vista
4th: National City
5th: Dutch Flats

However, it was known at that time that there would be considerable opposition to the acquisition of North Island by the United States Government, as the Spreckels Company had no desire to relinquish title to the island.

DEPARTURE OF 1ST AERO SQUADRON:

The 1st Aero Squadron with 15 officers and 85 enlisted men and one civilian, Mr. Jake Bailey, left the Aviation School on July 26, 1915, for Fort Sill, Oklahoma. Up to the actual time of leaving of the squadron no one could visualize the amount of railroad transportation needed, so that when it was found out that an entire train would be needed for all equipment which was ready to be transferred into the cars, there was much surprise.

This train consisted of one standard sleeper, two tourist sleepers, one coach, two baggage cars, and ten freight cars. Needless to say such a large shipment from the Aviation School, which at that time had only a limited personnel, caused not only a considerable amount of confusion at the school before the train actually pulled out, but also much comment in the City of San Diego.

MEDICAL OFFICER REPORTS FOR DUTY:

On July 27, 1915, a regular Army Medical Officer reported for duty and Doctor Worthington was relieved from active duty and returned to his home.

ADDITIONAL FUNDS RECEIVED:

Additional funds were received for new construction at the beginning of the fiscal year 1915-1916, and by the end of August the following new buildings were completed:

Dining room for officers' mess
An addition to the north end of the machine shop
Small room for Post Exchange.

VISITORS:

It is almost a certainty that there must be some magnetic interest which draws visitors to North Island for we find that in August 1st, 800 midshipmen from the Naval Academy arrived in San Diego on the Battleships "Ohio","Missouri", and "Wisconsin", visited and inspected the Aviation Field at North Island.

The arrival of the visitors continued from time to time and especially Committees from Congress. On August 1, 1915, the Rivers and Harbors Committee consisting of 20 Congressmen visited and had lunch at the school.

The month of September saw two prominent visitors inspect the school. One was Inspector General from the Inspector General's Department and

the other was a colonel in the Russian Field Artillery.

EXPERIMENTS AND TESTS OF NEW DEVICES:

By August 1, 1915, tests which had covered a period of several months had been completed on a radio-telephone set but it was found that the telephone apparatus was unsuited for use in airplanes in its present state of development because conversation could not be heard while the engine was running.

An important experiment was tried out during the month of September when a parachute was fastened to the tail skid of an airplane with a view of utilizing it as a brake. The machine taxied along the ground until the pilot reached flying speed and just before the airplane left the ground the pilot cut out his switch and pulled the string which opened the parachute. Three trials were made before it was decided that the parachute did not have the desired effect.

In the early airplanes used at the school the R.P.M. of the engine was taken while the plane was on the ground with a hand tachometer and it was assumed that it would continue to function in the air as it had on the ground. From time to time it was realized that some sort of instrument must be devised that would give the R.P.M. to the pilot on sight while in flight, accordingly a marked step in the right direction was reached when on August 10th, the Engineering Department reported that they had tested and found a satisfactory tachometer for use in an airplane.

LIEUT. C. C. CULVER REPORTS FOR DUTY:

In September 1915, Lieut. C. C. Culver reported for duty and took over all experimental work in connection with radio. Lieut. Culver had received special training along electricity and radio lines at the Signal Corps and was well qualified to take up the experimental work at the school.

PARACHUTES:

In September also tests in the Broadwick parachute had finally been completed and as a result of these tests it was recommended that a limited number of them be purchased for use in the Aviation Section. It is to be noted in this connection however, that apparently the officers of this board were years ahead of the time for not until 1922 were parachutes made a part of the regular equipment of airplanes.

ANOTHER RECORD:

On September 17, 1915, Lieut W. R. Taliaferro established a new American endurance record of 9 hours and 48 minutes. This flight was remarkable due to the fact that the first two or three hours were made under very trying weather conditions. Lieut. Taliaferro found that he could not get above an altitude of 600 feet without going into a fog. This condition prevailed from 5 o'clock in the morning, at which time he left the ground until after 8 O'clock in the morning, at which time the weather cleared. He landed in the early afternoon with a dead motor, after having consumed all the gasoline which he carried.

FOG:

Evidently from the start of aviation at North Island fog has had its influence to a far greater extend than it is generally realized, for from time to time as new records were tried for an made aviators have found their path blocked by fog. This condition was true in 1915 and is still true in 1923.

STANDARD CONTROL:

By the middle of the summer of 1915, every country in the world except the United States had adopted a standard control for use in airplanes. This control was commonly known as the "Dep." A wheel was used for lateral and

vertical control and the rudder was worked by the foot. Naturally it was only a question of time till the United States would fall in line and adopt this control. This control was installed in one airplane at the Aviation School at San Diego about September 25 th, and instruction was started at once to familiarize the personnel with its use.

NEW ASSIGNMENT OF OFFICERS:

An additional officer of the Medical Corps reported for duty during the month of October. This was Captain R. W. Ryan. Also during October, Lieut. W. R. Taliaferro was relieved from the Training Department and Lieut. H. A. Dargue assigned in charge of that department. Lieut. C. C. Culver was made Post Exchange Officer, Meteorological Officer and Range Officer, and Lieut. E. S. Gorrell was put in charge of the school detachment.

LIEUT. TALIAFERRO'S DEATH:

On October 11, 1915, Lieut. W. R. Taliaferro in a Curtiss-J airplane fell from an altitude of 2000 feet in the San Diego Bay and was killed. This flight was peculiar in that though many people were watching the plane during its flight no one could assign any reason for the accident. An inspection of the plane after it had been salvaged from the water did not assist in any way in giving clews as to what might have happened.

CURTISS MARINE TROPHY:

On and after October 22, 1915, attempts were made by the personnel of the school to cover sufficient distance over the water in water-planes to secure possession of the Curtiss Marine Flying Trophy. On that date Lieut. H. A. Dargue after flying 192 miles had magneto trouble which eliminated him. On October 27th, civilian instructor, Mr. Oscar Brindley, flew on a course between San Diego and San Juan Capistrano and by the end of the elapsed time had covered 554 miles. This contest required that a water-plane be used and that the flight must be completed in 10 hours before the final landing of

the airplane. Planes could land at any time for gasoline, oil, and water. The pilot in the United States who covered the greatest distance under those conditions secured the Trophy.

On October 31st, Mr. Raymond V. Morris, of the Curtiss Aviation Company, made a try for the Curtiss Marien Trophy and was forced to land after covering 512 miles. Mr. Oscar Bridley with his flight of 554 miles won the trophy.

SECOND AERO SQUADRON:

By December 1, 1915, the 2nd Aero Squadron had sufficiently progressed in its organization and training that orders were requested for the first company to leave for Manila on the June transport. Captain William L. Patterson was designated to command the first company of the 2nd Aero Squadron.

NOTICE FOR U. S. TO GET OFF NORTH ISLAND:

On December 1, 1915, the Coronado Beach Company sent a letter to the Commanding Officer of the Signal Corps Aviation School of North Island which is of great interest in that apparently the Coronado Beach Company desired to regain possession of North Island before the United States Government became too firmly implanted. In this letter the policy of the Coronado Company is indicated as follows:

> "Mr. Saxon, our Coronado Beach Company foreman, reports the desire of the Aviation School to clear more land and grade the same for aviation purposes.
>
> Before you make these impovements we would like to advise you of a change in policy of the Coronado Beach Company in regard to North Island.
>
> It was after Mr. Curtiss had established himself on the Island that the United States Army established their school for aviation at North Island under the wing of Mr. Curtiss; that is to say, no direct agreement or understanding was arrived at with us regarding the United States Army establishing an Aviation School on North Island. It was all done under Mr. Curtiss' permit.

Prior to this occupation of North Island by Mr. Glenn Curtiss it had been surveyed and platted in lots and blocks, it had been the intention of the Company to put North Island on the market as a high-class residential property for which purposes it is extremely valuable. The Coronado Beach Company has for many years carried on a policy under which it has expended very large sums of money in building up the values of its Coronado properties, including North Island. During the time that North Island has been occupied by the aviation school the Coronado Beach Company, the owner of the property, has paid over $50,000 in taxes alone. Yet not one cent has been asked for the use of the property, either by Mr. Curtiss or the United States Government. We agreed to allow Mr. Glenn Curtiss to use North Island for a period of three years from February 2, 1911, and we have therefore fulfilled any obligation we owe to Mr. Curtiss.

When Colonel Reber was here I had an interview with him on October 23, 1914, which I recorded at the time. The record says:

> "Colonel Reber wanted to have some assurance that they (United States Army Aviation School) could occupy their present site for the next year or 18 months. I told him that so far as I knew the situation there was no policy on the part of the Coronado Beach Company to do anything at North Island which would interfere with their use of it for the next twelve or 18 months"

According to this understanding with Colonel Reber we will have fulfilled any obligations we owe the aviation department by March 31, 1916.

The time has now arrived when the Coronado Beach Company feels that its interest demands that the work of grading and otherwise preparing the property for the use which, one might say, it has been in preparation for the last 25 years be pushed forward. In other words, we wish to get the property ready to put on the market, as we believe by the time preliminary work of grading, paving, and sewering, and serving with water, electric lights, and street cars is finished, the market will be ripe for disposal of the property. With this policy in view, we regret that it is necessary for us to advise you, as the commanding officer of the aviation school, that we would like North Island vacated as soon after March 31, 1916 as is possible, in order that we may commence work on our plans of improvement.

As you propose to make certain changes at North Island, we think it wise to advise you at this time that we expect to commence work early next year on our North Island property

in case the aviation school might prefer not to undertake any expense inconsistent with the fact that its period of occupancy is expected to end March 31 next."

This change of policy of the Coronado Beach Company brought matters to a head and made it imperative that some definite action be taken with regard to location of an aviation school. It is to be noted, however, that in spite of the fact the Coronado Beach Company requested the Government to move at once, nothing definite was done either by the government or the Beach company for the next two years, at which time the Government finally obtained possession of the island, but in the meantime the commanding officer of the school was working under a great handicap in that he never knew at what moment he might be called upon to move his entire school off the island at a very short notice.

The policy of the Government with reference to the Aviation School would have indicated to close observers that there never was any intention on its part of relinquishing control of North Island. The original detachment had arrived and started its operation from tents. From time to time temporary buildings were constructed until by June 1, 1916, there was a total of 22 temporary buildings constructed by the Government at a total cost of about $40,000. These buildings were built on an arc, about 2000 feet long, along the north end of North Island.

MACKAY TROPHY FOR 1915:

On December 14, 1915, the Chief Signal Officer of the Army decided in that the Aviation activities of the Army were getting so scattered it was impossible to have contests for the Mackay Trophy from any one station and that if they were held from the various stations conditions would not be the same. He therefore recommended that a Board of Officers be appointed to examine carefully the records and performance of all officers on duty in the Aviation section and then make recommendations for award of the trophy. This recommendation was approved by The Adjutant General of the Army and as a result of a Board of Officers which met at San Diego in December 1915. Lieut. B. Q. Jones was awarded the Mackay

Trophy for best record and performance during the year - "In that he had created two records; one for endurance with a single passenger, and one for endurance with two passengers." From this time on the Mackay Trophy was awarded to officers based on their records and not by competition.

1916

REORGANIZATION OF THE SCHOOL:

During the latter part of 1915 and the first part of 1916 the school itself was going through a very critical stage of its existance. Conditions were present in the school which on any other station would have been summarily dealt with. Information was being furnished by the officers of the school to outside sources with a view of breaking down existing authority. This all finally resulted in a court-martial at San Francisco at which time various charges and counter charges were made and filed. All this finally resulted in a reorganization of the Aviation Section of the Signal Corps and reassignment of officers. The fonfussion attendant with this condition practically stopped any progressive operations at the school for the next few months.

As a result of War Department Orders the school was reorganized as follows:

Commanding Officer	- Colonel W. A. Glassford
Secretary	- Captain F. P. Lahm
O.I.C. Training	- Lieut. H. A. Dargue
O.I.C. E. and R.	- Lieut. B. Q. Jones
Supply Officer	- Captain H. H. Arnold
Quartermaster and Disbursing Officer	- Captain H. M. Royden
Meteorological Officer and Radio Officer	- Captain C. C. Culver
Medical Officer	- Major W. R. Ream

JUD PETTIGREW REPORTS FOR DUTY:

On February 11, 1916, Mr. Jud Pettigrew came to the school for duty in charge of Post Maintenance and has been employed in that capacity up to date January 1, 1924.

NEW RECORDS 1916:

On February 15, 1916, civilian inspector Floyd Smith while conducting an acceptance test for a Martin seaplane established a new world's record for hydroplane for pilot and three passengers climbing to 9603 feet. On February 10th, Corporal Albert D. Smith in a Martin Hydroplane established a new world record for endurance for hydroplane leaving the ground at 6:50 A. M. and landing at 3:32 P.M. a total time of 8 hours and 42 minutes.

STATUS OF SCHOOL JUNE 1916:

Outside of the regular routine training which was being carried on at the school there was no progressive work accomplished up to June 30, 1916. The number of flights has increased regularly from about 297 in July 1915 to 525 in June 1916. Number of hours in the air reached a maximum during the month of May of 284 hours. There was a total of 24 airplanes available at the school during the year for training purposes. The personnel varied somewhat but was about as follows:

Officers on permanent duty at the school		8
Student Officers		34
Enlisted men varied from 153 in December to		111 in June
Civilians in training Dept.	3)	
Civilians in Engr. Dept.	15)	
Clerical help	3)	21
Total		174

POLICY OF TRAINING FOR AIR SERVICE:

The accepted policy for training in the Aviation School of the Signal Corps up to this time provided that the officers attached for aviation duty come to San Diego for instruction at the Aviation School. Here they were given practical and theoretical instruction in actual flying, repair and maintenance of airplanes and engines, meteorology and radio. After they had completed their course and received their ratings they were sent to the 1st Aero Squadron for duty or retained

for duty in the Aviation School on the permanent staff. In this way up to June 30, 1916, about 30 officers had received their ratings as Junior Military Aviators. However, all of these officers were extremely junior in rank and young in years so that the War Department was endeavoring to adopt a policy which would permit the training of older officers for administrative and executive duties with the Air Service.

MR PENNEY AND MR. BAILEY:

On August 9, 1916, Mr. A. D. Penny reported for duty as civilian chief clerk and has been on that duty in that capacity ever since (January 1, 1924) excepting during the period of the World War.

On September 5, 1916, Jake Bailey returned to the school for duty to take care of all motor overhaul.

FIELD OFFICERS' COURSE IN AVIATION:

During the fall of 1916 orders were issued for Colonel W. L. Kenley, Field Artillery; Colonel H. G. Bishop, Infantry; and Colonel (Lieut) J. B. Burnside, infantry, to proceed to San Diego and report in person to the Commanding Officer, Signal Corps Aviation School, for the purpose of taking a field officers' course in aviation. The purpose in this field officers' course was to furnish officers older in experience and more advanced in rank and age who could take over the administrative and executive offices in this rapidly growing branch of the Army.

RADIO EXPERIMENTS:

During the summer and fall of 1916 the first real developments in radio were accomplished at the Aviation School. On July 27, 1916, Captain C. C. Culver, in an airplane near Los Angeles sent radio telegraph signals and messages which were received at the Aviation School at San Diego.

Maximum distance covered was about 119 miles. On August 17th, Captain Culver while in flight received a message in the airplane from a station on the ground at a distance of about 11 miles. On the following day Captain Culver at a distance of 11 miles carried on a running conversation by radio telegraph with the station on the ground. On August 24th, the range was increased and the conversation made up to 40 miles. On September 2nd, two airplanes, both equipped with radio, with Lieut. W. A. Robertson, as radio operator in one and Captain Culver as operator in the other, communicated with each other while in the air. Congressman William Kettner of this district was a spectator and after Captain Culver had gone into the air gave a message to Lieut Robertson for transmission to Captain Culver. Lieut. Robertson went up in his plane and transmitted the message to Captain Culver who received it successfully while the planes were some two miles apart. On October 27th, Captain Culver, in an airplane transmitted messages to Chatsworth about 140 miles distant. These were the first instances on record where radio has been demonstrated asn an absolute success in which messages were sent and received in the air. Later in the year messages were successfully exchanged from ground to plane and vice-versa and from plane to plane by radio phone.

1917

THE SCHOOL JANUARY 1917:

By the first of January 1917, the school had grown considerable in size and importance. It was the only aviation school in the United States Army and all officers of the regular service were sent to it for instruction. In addition necessary authority was secured for sending certain National Guard and Reserve off-

icers to the Aviation School at San Diego for instruction under similar conditions as the Regular Officers were sent there. There were 35 officers who had graduated from the school and were assigned for duty with operating units in the field. Eight graduates were still on duty at the school waiting assignment for duty, and 51 student officers were under instruction, and the school staff had been increased till it numbered nine officers. To take care of the student officers the enlisted personnel had been increased to 240 and the number of planes to 32.

SEARCH FOR COLONEL BISHOP AND LIEUT. ROBERTSON LOST IN MEXICO:

On January 10, 1917, a flight was made starting from North Island which might be said to have created an invisible path down into Mexico which once aviators entered they found they could not turn out of until they had made a forced landing south of the Border. Lieut. W. A. Robertson who was assistant to the Officer in Charge of Training, accompanied by Colonel H. G. Bishop, as passenger, started from North Island for Calexico. Apparently either due to a defective compass or not being furnished with proper maps on starting, the pilot got off his course and after flying to the limit of his gas capacity landed with a dead stick at a point near the head of the gulf of California in Mexico. Both the pilot and observer upon landing thought they were on the shore of the Salton Sea. However, after walking south some considerable distance they retraced their steps and noticed for the first time there was a tide and that while walking south the water completely obliterated their footsteps. Then it dawned upon them that they had landed on the Gulf of California and were a long way from home. They had in their airplane one can filled with oil to be used in case the engine consumed more oil than expected. They emptied the oil out of the..... (apparently something is left out here)?

of water, two sandwiches and two oranges. The nearest point to the United States boundary line was 60 miles to the north east. The country over which they had to travel was entirely devoid of water and consisted of shifting sand dunes, so that after walking for 24 hours or so it was but natural that they should start depositing their helmets, goggles, aviation ccast along the line of march, until at the end of the second day they were traveling about as light as they could, consistend with the cold at night and the hot sun in the day time.

In the meantime their nonarrival at Calexico caused considerable amount of concern at North Island and civilian searching parties started out in various directions to locate, if possible, the two lost aviators. The line of travel of the plane was checked by communicating with ranchers and miners until it was known to have passed to the south and east of Laguna Salada and was actually seen somewhere just north of the mouth of the Colorado River. The searching parties were accordingly directed in that generallocality. The disappearance of the two aviators had by this time become an item of nation wide interest and various searching parties were working out of Welton and Ajo composing,miners, ranchers and prospectors who had prospected over that section of the United States and were well acquainted with the various trails and water holes. On January 18th, eight days after leaving San Diego, Lieutenant Robertson walked into the camp of one of the automobile searching parties at a surveyor's Tank on the border about six miles to the south of Tinajas Altas. Lieut. Robertson was completely exhausted and could not have gone much farther. This party picked up Lieut. Robertson in their car and started crossing the desert to find Colonel Bishop. After traveling about 15 miles the automobile could go no farther due to sand and a number of the party started on foot to find

Colonel Bishop by following Lieut. Robertson's tracks. Lieut. Robertson was sent to Wellton in the automobile. That same night about nine o'clock they found Colonel Bishop about 30 miles south of the Surveyor's Tank. Colonel Bishop was so weak and fatigued that it was impossible to move him across the desert unless he was carried. The party remained there until the next morning. An ambulance from Yuma had been sent out on the 18th and managed to get within 15 miles of the point where Colonel Bishop was. Soldiers carried a litter for the remaining 15 miles and returning carried Colonel Bishop to the ambulance. The ambulance and party arrived in Welton about three the following morning. The airplane remained where it had landed until March 1918, when it was brought out from Mexico and brought to Ajo by automobile and later was returned for service in training Aviators at Kelly Field.

The details of this flight are ennumerated as it is familiar in many respects to several flights which started from Rockwell Field and seems to present a foundation for the statement being made that "History repeats itself."

Colonel Bishop and Lieut. Robertson were returned to San Diego by rail from Welton and after a long rest neither one suffered any permanent disability from their exhausting and nerve-racking experience.

The after effects of this flight were far more serious in connection with the operation of the school than upon the officers themselves.

Colonel Bishop and Lieut. Robertson left San Diego January 10th. No effort was made by the Commanding Officer to locate these two lost aviators until the Afternoon of January 14th, when instructions were given by him to send out a searching party on the morning of January 15th. This inaction caused so much comment and unrest among the officers of the school that

many changes were made and investigations requested.

Shortly after January 1st, the permanent personnel of the school began to be materially changed until at the end of six months practically all the permanent staff officers had been transferred to other stations. These transfers were effected, some as a direct result of the Bishop-Robertson search, some incidental to it, and some in no way connected with it.

CHANGES IN OFFICER PERSONNEL:

On January 11, 1917, Captain W. E. Dawson, retired, was ordered to active duty as assistant to the Quartermaster and ultimately took the place of Captain Royden.

On February 6, 1917, Captain H. H. Arnold, supply officer, was ordered to Panama for duty. He was relieved as supply officer by Captain C. G. Gearhart.

On February 27th, Major W. A. Burnside, one of the older officers sent to the school for special field officers' course was ordered to join his regiment.

On March 14th, Captain J. C. F. Barthelf, was ordered to Hampton, Virginia, for duty and his place as Assistant Secretary was taken by Major T. H. Bane.

On March 16th, Captain C. C. Culver was ordered to Washington, D. C. for duty.

On April 6th, Colonel Alexander L. Dade, Cavalry, was ordered to the Aviation School for duty to take the place of Lieut. Colonel W. A. Glassford, Commanding Officer, who retired on April 11th.

On May 15th, Lieut. W. A. Robertson, assistant to the officer in charge of Training, was ordered to join the First Aero Squadron for duty. His

place as assistant officer in charge of training was taken by Captain A. D. Smith reserve officer, who was called to active duty for that purpose.

On May 19th, Colonel Wm. L. Kelly, was relieved from further duty with the field officer's course and sent to San Francisco.

On May 9th, Captain F. P. Lahm, was relieved from duty at the school, and ordered to the Ballon School at Omaha, Nebraska, his place as secretary of the school being taken by Major T. H. Bane.

On June 6th Lieut. B. Q. Jones, was ordered to Washington, D. C. for temporary duty, his place as engineer officer being taken by Major G. L. Gearhart.

Lieut. C. W. Howard was made supply officer.

On June 7th, Lieut. H. A. Dargue was relieved from duty at the school and from the Aviation Section and ordered to join his regiment in San Francisco. His place as officer in charge of training was taken by Lieut. Colonel Henry J. Damm.

GENERATING SET:

The 10 K. W. power plant by this time was entirely inadequate to meet the demands of the machine shops so that a 75 horsepower semi Diesel Fairbanks Morse generating set was installed. This out fit was planned for a school double(the size)but due to the increase in size of the school with the outbreak of the war it was only used for a few months.

HISTORY OF ROCKWELL FIELD

by

Major H. H. Arnold, A.S.

PART IV

HISTORY OF ROCKWELL FIELD

PART IV

THE SCHOOL AT THE TIME OF DECLARATION OF WAR

APRIL 6, 1917:

The operations of the school were purely routine up to the time of the declaration of war against Germany on April 6, 1917. When war was declared steps were taken at once to increase the number of students graduating from the school. The school at North Island was by this time one of three operating, but shortly after the war was declared the number of schools increased until at the end of the war there were 28 aviation schools operating. The first plans drawn up after the declaration of war contemplated continuation of the San Diego School as a primary Training unit for Officers and steps were taken to conform to this plan. The strength of the school on April 6, 1917, was 75 officers, 587 enlisted men and 50 civilian employees, of whom 7 officers and 6 enlisted men were from the National Guard. The above personnel was not sufficiently large for carrying on the regular training and work and in addition doing the necessary guard and fatigue, so that two companies of the 21st Infantry were ordered to North Island for duty on April 12th, for guard purposes. These two companies remained on this duty until August 1917. New construction to the amount of $6,000 was started and completed by May 1917. Transportation to facilitate movement of supplies and personnel was increased materially, camps were constructed for student officers and enlisted men, so that on June 30, 1917, the strength of the school was 38 officers, 555 enlisted men and 48 civilian employees; a number of officers having completed the course at the school had been sent to other organizations for duty.

NAVY DESIRES PART OF NORTH ISLAND:

During the month of July 1917, the occupation of at least a part of North Island by the Navy was a matter of common talk. This came as a result of report of a joint Army and Navy Board which made its recommendation during the early part of the year. On July 28th, the Commanding Officer, then Colonel A. L. Dade, in a letter to the Chief Signal Corps Officer, in part stated: "We need all the land and all of the air at the North Island site. The Navy can find all the land, air and water they need at other places about the bay on this part of the coast."

ROCKWELL FIELD PERMANENTLY NAMED:

On July 20, 1917, the Aviation School on North Island received the name it now bears "ROCKWELL FIELD." By Memorandum No. 59, Office of the Chief Signal Officer, dated July 20th, the field established at San Diego, California was designated as Rockwell Field, in honor of 2nd Lieutenant Louis C. Rockwell, 10th Infantry, who was killed at College Park, Md., on September 28, 1912, in a Wright B. type airplane. Lieut. Rockwell reported for duty with the Aviation Section of the Signal Corps on July 5, 1912.

LACK OF POLICY IN SCHOOL:

In the meantime due to the necessary mushroom growth of the Air Service, officers and enlisted men were transferred to and from Rockwell Field as their services were deemed necessary and important. The result was an apparent confusion and lack of progressive policy in the running of the school affairs. This continued until the first violent expansion due to the war had ended.

FRENCH OFFICERS:

On August 15, 1917, two French Officers reported to the Aviation School for duty. They were Lieut. Robert Mayresse and Sous Lieut. Henri Marquisan. These French Officers were sent to the school as a part of a general policy to have such officers as were available on the staff of Commanding Officers of Schools with a view of profiting by experience gained by the Foreign Armies during the war.

GUARD:

In the latter part of July or first of August the two companies of the 21st Infantry on North Island for guard duty were replaced by the 19th Company of the Coast Artillery Corps. On August 11th, the First National Guard Officers completed their training as airplane pilots.

BURNING OF KELP:

On August 15, 1917, steps were taken to end an industry which had been growing steadily ever since the World War had been declared in 1914, that was the burning of kelp on the shores of North Island to secure potash. After the Government took possession of the Island for war purposes the Commanding Officer wrote a letter to the kelp burners telling them to get off the Island and get off quick.

CONFERENCE BETWEEN THE ARMY AND THE NAVY FOR JOINT ARMY AND NAVY AERONAUTICAL STATION:

During the first part of August 1917 after conference between the Army and Navy in Washington it was decided by the Secretary of War and the Secretary of the Navy that a permanent joint Army and Navy Aeronautical Station be established on North Island and it was requested that the Commanding Officer of Rockwell Field arrange a conference with the senior Navy Officer at such time as was agreeable to the Senior Navy Officer and Mr. Albert Kahn, architect from Detroit, Michigan.

In this conference it was suggested that the question of a central machine shop, central power plant and central repair shop for joint use of the Army and Navy be considered. A map showing proposed boundry line between the two sections for the Army and Navy was enclosed and it was further requested that the desirability of establishing a railroad and road connections between North Island and San Diego be discussed. The Commanding Officer was informed that there would be about $750.000 available for Army purposes.

By this division the Army was to turn over to the Navy the north end of the island with such buildings as the Navy should desire, and the Army move down and occupy the south end of the Island. Report of conference between the Army and Navy Officials and Mr. Kahn was forwarded to the War Department on August 17th, and contained the following recommendations:

> "That the dividing line between the Army and Navy portions of the "Island" be practically as indicated on the chart submitted to the conferees for consideration.
>
> That both the Army and Navy be permitted to use the whole "Island" as flying fields under such arrangements as may be agreed upon by Commanding Officers on the ground.
>
> That a causeway be built across the isthmus connecting North Island and Coronado, in continuation of a road along the eastern edge of North Island, which road and causeway shall be for the use of both the Army and Navy.
>
> That a ferry service for persons and freight and a railroad ferry, for joint use of the two services, be established between San Diego and North Island; that the necessary docks be built at or near the location of the present dock at the northeastern point of the "Island" and that a railroad for joint use be built along the eastern shore of the "Island" to extend as far as the storehouses, etc., on the Army property.
>
> That there be one industrial plant in which all repair work and other work for both services shall be done."

WAR DEPARTMENT ASSUMES CONTROL OF NORTH ISLAND:

On August 20, 1917, the Commanding Officer of Rockwell Field in compliance with a bill passed by Congress and signed by the President wrote to the Spreckels Company as follows:

> "You are informed that instructions from the War Department dated August 11th, directs me to assume control, in the name of the United States, of the whole of North Island, and that in compliance with these instructions I have assumed such control."

PROJECT SUBMITTED BY MR. KAHN:

After a further survey of the ground, Mr. Albert Kahn, architect of Detroit, drew a plan for permanent construction for Rockwell Field. The project as submitted by Mr. Kahn on August 25, 1917, included a large construction; repair and power buildings, administration buildings, railroad siding, hangars, aero supply warehouses, quartermaster warehouses, garage, enlisted men's barracks, cadet barracks, post exchange, guard house, noncommissioned officers' quarters, officers' quarters and hospital. In his report he recommended two story buildings for barracks, quarters and hospital, a centralized repair and construction plant for both engines and airplanes, and large school buildings for instruction of students. The project in itself was ideal in that it grouped all buildings for noncommissioned officers and the hospital together where a splendid view of the bay was to be obtained and located the officers' quarters at the extreme end of the Island facing the ocean. The system of roads contemplated a main avenue leading from the dock all the way to the south end of the island to the Officers' quarters. Here a circular arrangement was planned around which the line of officers' quarters was to be constructed and then a road to be built over a causeway connecting North Island to Coronado Beach by way of the Strand.

A new dock was to be constructed which would provide better unloading facilities. All of these buildings were to be built of stucco or tile.

The plans even went into sufficient detail to provide for water supply, sewerage disposal, lighting and power. This project after being recieved in Washington was approved with instructions that while the permanent construction would be started with a view of its being finished as rapidly as possible, in the mean time it was important that sufficient temporary buildings be constructed in order to house the school on its new site. The new project contemplated the Army moving and turning over all existing facilities to the Navy. It was realized that permanent construction could not possible be completed inside of a year. In the meantime the Navy was very desirous of moving in on North Island at once and start its training operations. This regardless of the fact that none of the temporary construction for the Army site was at that time even started. On September 1, 1917, the Navy Dept. requested the use of two water hangars and quarters for 25 enlisted men.

SPRECKELS COMPANY REQUESTS AUTHORITY TO CONTINUE OPERATION OF MARINE WAYS;

On August 24, 1917, the Spreckels Company requested the authority to continue operation of their marine ways in view of the fact that they were docking vessels for the Army and Navy on their ways, and there were no other facilities in San Diego harbor for doing this work. They stated that they believed by the end of the year they would be able to complete their additional docking facilities and vacate the one on North Island. In view of the fact that this was in reality war work and such permission was granted them.

GROUND SCHOOL STUDENTS ARRIVE FOR INSTRUCTION:

On July 14, 1917, the first of the ground school graduates arrived at Rockwell Field from Berkeley, California. The detachment consisted of 14 enlisted men. On July 21st, the second detachment arrived consisting of 19 enlisted men, and on August 1st, the third detachment arrived consisting of 24 men. Thus a total of 57 new students had arrived at the school for training during the month of July.

AIRPLANES RECEIVED:

In the meantime the number of planes available for instruction purposes was increased daily by shipments received from the Curtiss Company at Hammondsport, New York, and the Martin Company in Los Angeles, the schedule of instruction was varied sufficeintly from the old routine to permit all students receiving their flying instructions at the same time and there were sufficient enlisted men available together with the existing civilian force to keep the airplanes in flying condition, so that by the end of July in spite of the confusion attendant with the transfer of personnel to and from the school after the declaration of war, Rockwell Field was operating in an efficient manner and had adopted itself to the increase of work required. From this period on, it was merely a question of expanding the different departments in order to handle the increased output demanded of it.

NAVY MOVES IN:

On September 8, 1917, authority was granted to the Navy Department to move in on North Island and occupy two old buildings and the Curtiss School hangar for seaplanes. This marks the first occupancy of North Island by both the Army and the Navy as an Aviation Training Center.

CHANGES IN PERSONNEL:

The change in personnel made at the school to meet the increased requirements due to the war is shown by the following table:

1917	Officers	Enlisted	Civilians	Cadets of officers under training	Student Capacity	Total Graduates	Airplanes
July	38	527	48	57	75	-	54
August	34	682	44	97	100	-	70
September	39	740	46	121	100	20	94
1918							
August	430	1220	-	220	400	831	190

The school was changed during August 1918, from a Primary Flying School to a Pursuit and Gunnery School. Up to that time 831 Reserve Military Aviators had been graduated.

1918							
October	413	141	-	139	520	87	292
November	518	1576	-	144	520	134	377
December	696	1702	-	225	520	264	424
1919							
January	396	1592	-	-	520	425	450

School discontinued January 31, 1919.

1919							
April	229	544	-	-	520	-	450
June	190	542	-	-	520	-	450
August	125	441	-	-	520	-	450

A study of this table reveals the following facts:

(a) The school was changed during August 1918 from a primary flying school to a pursuit gunnery school. At the date of change 831 cadets had received their primary training and graduated as Reserve Military Aviators. Rockwell Field was especially adapted geographically for a pursuit and gunnery school. As a primary school it had been necessary to establish certain outlying fields in order to take care of the constantly increasing number of students. Ream field a level plot of ground, 8 miles south of Rockwell Field, on the ocean front, was established just south of Imperial Beach and adjacent to the Tia Juana River. The second auxiliary field was established at Otay Mesa, seven miles east of Ream Field, on a table land as the name implies. The requirments of a good pursuit and gunnery school are plenty of level ground to land pursuit planes, large expanse of water or unoccupied country for aerial gunnery, and still water for placing land targets to be fired at from the air. These features were obtained at Rockwell Field, Ream Field and Otay Mesa, and due to the formation of the ground as found, no work was necessary to acquire them. On the establishment of the pursuit and gunnery school, the officers arriving were given their ground gunnery and other primary flying on pursuit planes at Rockwell Field, aerial gunnery and firing at water targets at Ream Field and formation and aerobatic flying at Otay Mesa.

By the end of the war the school had improved to such an extent that all of the foreign observers and the American Officers who had graduated from foreign schools pronounced the pursuit and gunnery school at Rockwell Field the equal if not the best in all of the Allied Countries.

(b) The officer personnel at the school increased in number until December 1918, at which time there were 596 officers for duty. In like manner the enlisted personnel increased from 552 in July 1917, to 1702 in December 1918. The student capacity increased from 75 in July 1917 to 520 in December 1918, and the number of airplanes reached about the maximum of 500 airplanes about December 1918.

(c) As stated above the conditions surrounding Rockwell Field and its auxilliary fields were ideal for training pursuit and gunnery pilots so that when the school was discontinued Rockwell had graduated 425 officers as pursuit pilots.

MACHINE GUN FIRING:

The expansion of the school went along hand in hand with the arrival of additional personnel for training. Buildings were constructed very rapidly. All modern means of instruction in ground and aerial gunnery were taken advantage of and put into effect. At the south end of the Island a line of target butts was erected approximately three quarters of a mile long. It was possible to instruct at the same time approximately 10 officers in each of the following kinds of firing - machine guns using fixed supports, machine guns mounted on moveable mounts corresponding to the gun mounts in the rear cockpit of airplanes machine gun firing at an airplane traveling in varying directions and speeds and at an airplane mounted on a carriage so that it traveled both forward and up and down. This target moved forward for a distance of about a quarter of a mile, thus enabling the students to actually shoot at a moving airplane. In addition to this sleeve targets attached to cables about 1000 feet long towed by one airplane were fired at in the air from another airplane, and water targets simulating trenches were placed in the south end of the bay, in order that the education of the students would be complete, by firing at the ground targets and also enable them to correct

their errors by actually seeing the splash of the shots as they hit.

CLIMATIC CONDITIONS:

The weather conditions around San Diego were probably better than those existing in other aviation schools in the United States, thereby permitting practically continuous and uninterrupted instructions throughout the year.

THE SCHOOL DURING PERIOD JAN. 1919 * JUNE 1919:

The schools had reached its peak in number of airplanes available, officers under instruction and enlisted men on duty in January 1919. After that date the demobilization of the Army started and by June 1919, the personnel of the school was materially decreased.

COMMANDING OFFICER:

On December 8, 1917, Lieut. Colonel Henry J. Damm, relieved Brigadier General A. L. Dade as commanding officer. Colonel Damm was later killed at McCook Field, Ohio, while testing out the first Army DH-4 airplane in May 1918.

On February 4, 1918, Major E. B. Lyon, was acting commanding officer, until relieved in February 15, 1918, and Major J. P. C. Bartholf, who retained command until June 5, 1918.

Lieut. Colonel H. B. S. Burwell assumed command on June 6, 1918 until March 11, 1919.

PROMINENT OFFICERS ON DUTY AT SCHOOL:

Among the officers on duty during the war whose names have become more or less prominent in Air Service history are:

Major W. R. Ream, flight surgeon, Medical Dorps, who was later killed while engaged in a Liberty Loan drive at Indiana, by airplane, when the plane crashed to the ground. Ream field was named in his honor.

Major T. C. Macaulay, one of the pioneer aviators, and of prominence on account of his transcontinental flights.

Major Oscar Brindley who was killed in the same plane as Colonel Damm at McCook Field.

Captain Roscoe Fawcett, who is now assistant manager of the Fawcett Publications at Robbinsdale, Minnesota.

PROMINENT STUDENTS:

Norman Ross, holder of many world's swimming records.

Lieuts. John A. Macready and Oakley Kelly, who for so many years made and broke world's aviation records.

Lieut. Lowell H. Smith, present holder of endurance and distance world's records.

Major J. P. Mitchell, Mayor of New York, received his first training here but was later killed at Lake Charles, La.

Lieut. Colonel T. C. Turner, Marine Corps, now chief of Marine Air Service.

Lieut. Colonel William Thaw of LaFayette Esquadrille Fame.

Major Kenneth Marr, of LaFayette Esquadrille Fame.

Major W. A. Robertson, commanding officer of Aerial Gunnery School at Cazaux, France, a school which was recognized as one of the best gunnery schools in the world. Incidentally Major Robertson became more or less prominent in 1916 when he was lost in Mexico.

Major Carl Spatz, who was especially mentioned in Orders and decorated for gallantry in action while fighting over the lines.

Captain A. D. Smith, who later achieved distinction in his cross-country flights from the Pacific to the Atlantic Coasts and from the Canadian to Mexican Border.

2nd Lieut. James H. Doolittle, who on September 4-5th, 1922, flew from Jacksonville, Florida, to San Diego, California, in 21 hours, and still holds the record for crossing the continent in the shortest space of time.

Lieut. Lowell H. Smith, and Lieut. J. P. Richter, who in 1923, created three new world's records for speed and broke five world's records for speed, duration and distance, in airplane, while refueling in the air.

OCCUPATION OF THE ISLAND BY THE NAVY:

The agreement between the Army and Navy contemplated as stated before t
the Army moving its school to the south end of the Island and turning over the north end of the island for use of the Navy. This was considered most advisable due to the fact that the Navy would be able to use the quiet waters of the bay for the seaplanes while the Army would have the larger expanse of the island for land planes.

On the 15th of November 1917, the Navy was given permission to occupy the Curtiss seaplane hangars which had a capacity of four seaplanes.

On November 26, 1917, the line dividing the Army and Navy end of the island was surveyed by engineers from the Army and Navy and this line was definitely established as being permanent on January 14, 1918.

On December 7, 1917, an agreement was drawn up by which the Navy was permitted to use several Army utilities, such as water, gas and electric light until the Army could move to its end of the island.

On January 14, 1918, the Navy offered $29,395 for temporary Army buildings which would not be moved to the other end of the island. This offer was approved January 23, 1918, and transfer of funds carried out.

On March 6, 1918, the Navy took over the temporary Army barracks at the north end of the island.

TEMPORARY AND PERMANENT CONSTRUCTION FOR ROCKWELL FIELD:

On December 18, 1918 an estimate was submitted concerning the cost of a bridge connecting North Island and Coronado Island, length of the bridge to be about 3050 feet - cost about $47,000.00.

January 23, 1918, negotiations were started for the railroad to continue its line through Coronado over the bridge to North Island.

On January 16, 1918, two double sets of officers' quarters, hospital and bridge across the Spanish Bight were authorized for construction.

On January 30, 1918, authority was given to the Constructing Officers to start construction for a permanent hospital, and four sets of officers' quarters, -nine hundred thousand dollars was available for this purpose and an additional $75,000 was made available for construction of temporary steel hangars, and actual construction work started on temporary and permanent buildings on February 4, 1918.

On January 22nd, program for construction of temporary buildings on the Army end of the island was submitted and construction completed during 1918, as follows:

Officers' quarters, 12 men	- Never finished
Photographic Laboratory	- Feb. 1, 1918
Administration Building	- Apr. 13, 1918
Temporary Hospital	- May 2, 1918
Dope House	May 3, 1918
Five Mess Halls - Consolidated Mess Hall substituted	- May 8, 1918
Post Exchange	- May 9, 1918
Officers' and Cadets' Mess	- May 9, 1918
Boat Landing	- May 25, 1918
Aero Repair	- June 1, 1918
Machine Shop	- June 1, 1918
Quartermaster Supply	- June 6, 1918
Aero Supply	- June 15, 1918
Garage	- June 30, 1918
Hangars - capacity 98 airplanes	- July 31, 1918

The total cost of these buildings was about $300,000

The bridge over the Spanish Bight was completed on June 1, 1918.

On February 21st, an additional $900,000 was made available for construction purposes.

On March 15th, $150,000 was allotted for moving the school to the Army end of the Island. The actual transfer of the school and its activities started on May 1st, and was completed by June 8, 1918, on which date the Navy finally took over the entire north end of North Island.

CONSTRUCTION CEASES:

On June 27, 1918, all work on permanent buildings except the hospital and the officers' quarters was stopped. This was due to the fact that it was getting near the end of the fiscal year and it was afraid that more funds would be obligated than were available.

The status of the funds by June 21, 1918, was as follows:

Allotted.....$1,013,000.00
Expended..... 672,000,00

CONSTRUCTION AGAIN STARTED:

On July 1, 1918, work was started again on all permanent buildings. This included three permanent hangars.

On August 14th, there was available for permanent construction $280,000. While the construction work was being carried out at Rockwell Field, construction of temporary buildings at Ream Field and East Field (Otay Mesa) was also being carried on.

The total cost of construction of all buildings at Rockwell Field on January 1, 1919, was as follows:

PERMANENT CONSTRUCTION

4	Sets Officers' Quarters.....		$ 56,382.00
1	Hospital.....		146,268.00
1	Medical Research Building.....		4,727.00
3	Hangars.....		137,240.00
1	Lubrication Bldg.		4,457.00
1	Construction Shop)	Foundations started	5,781.00
1	Dope house.....)	buildings never	2,270.00
2	Barracks.....)	completed	32,636.00
			389,761.00

Temporary Construction

Training Department	$ 10,000.00
Gunnery and Training	10,000.00
Eight Hangars	72,000.00
Headquarters	8,000.00
Field Desk	400.00
Oil House	400.00
Consolidated Mess	22,500.00
Latrines	22,000.00
Post Exchange	9,000.00
Bakery	1,800.00
Quartermaster Supply	10,000.00
Reclamation Bldg.	500.00
Air Service Supply	10,000.00
Post Maintenance	4,500.00
Garage	9,000.00
Motor Test Sheds	2,400.00
Motor and Machine Shop	25,000.00
Foundry and Blacksmith Shop	2,500.00
Latrines	1,500.00
Engineering Office	3,000.00
Aero Repair	3,500.00
Lumber shed	1,000.00
Salvage Shed	5,000.00
Dope House	1,000.00
Latrines	1,000.00
Fire Station	150.00
Hose Houses	75.00
Photo Laboratory	2,200.00
Radio Bldg.	8,500.00
Mapping Bldg.	2,700.00
A.S. Supply Warehouse	8,000.00
Officers' Mess	16,000.00
Latrines	1,800.00
Officers' Club	13,000.00
Quarantine Bldg.	3,600.00
Recruiting Office	1,500.00
Ordnance Bldg.	500.00
Latrines	3,000.00
Pigeon Houses	700.00
Sentry Posts	500.00
Guard House	7,000.00
Incenerator	100.00
F.S.D. Headquarters	400.00
Officers' Garage	1,000.00
Tool House	100.00
A.S. Storehouses	1,500.00
Storehouses	9,000.00
Vault	2,000.00
Old Store House	10,000.00
Blacksmith Shop	2,500.00
Hay Storage	1,200.00
Store House	3,000.00
Stable	7,000.00
Harnes House	300.00
Wharf and Landing Float	21,000.00
TOTAL	364,325.00

TEMPORARY BUILDINGS AT REAM FIELD

Hangars	$104,500.00
Engineering Dept.	9,500.00
Training Dept.	9,500.00
Garage	9,000.00
Post and Squadron Headquarters	9,500.00
Old Residence	1,500.00
Power House	150.00
Post Exchange	500.00
Enlisted Men's Mess	1,000.00
Enlisted Men's Kitchen	1,000.00
Officers Mess'	1,200.00
Fire House	150.00
Latrines	300.00
Wash Houses	500.00
Heater House	200.00
Magazines	300.00
Total....	$148,800.00

TEMPORARY BUILDINGS AT EAST FIELD

Hangars	$ 9,500.00
Officers' Mess	1,200.00
Latrines	400.00
Wash Houses	550.00
Enlisted Men's Mess	5,000.00
Post Exchange	450.00
Motor Test Sheds	180.00
Power House	300.00
Total....	$ 17,580.00

RECAPITULATION:

		TOTAL
ROCKWELL FIELD		
Permanent Construction	$389,761.00	
Temporary Construction	364,325.00	
		$754,086.00
REAM FIELD		
Temporary Construction	$148,800.00	
		$148,800.00
EAST FIELD		
Temporary Construction	$ 17,580.00	
		$ 17,580.00
Grand Total		$920,466.00

PERMANENT CONSTRUCTION STOPPED:

Although there was sufficient money available for constructing the major portion of the permanent buildings and this money had been allotted for use at Rockwell Field for this purpose, when the Armistice was signed, all building programs were suspended. Later during March 1919, when Secretary of War Baker inspected the plant at Rockwell Field, and although he was shown the delapidated condition of the temporary buildings, he gave instructions that no more permanent construction would be carried on and that the money be returned to the Treasury of the United States.

It is to be noted in connection with the permanent buildings at Rockwell Field, that additional money had been expended on utilities for a permanent plant as follows:

Sewers	$74,829.00
Water	77,482.00
Storm Sewers	15,013.00
Gas Mains	2,714.00
Electricity	2,800.00
Roads	77,409.00
	$250,247.00

FOREIGN DETACHMENTS:

During 1917-1918, Rockwell Field furnished several organizations for various foreign stations and in addition supplied considerable number of pilots for duty in France. On March 10, 1917, a detachment of 50 men forming a nucleus for the 7th Aero Squadron was sent to Panama. On March 5, 1917, a detachment of 50 men forming a nucleus for the 6th Aero Squadron was sent to Hawaii. Captain H. H. Arnold, Supply officer of Rockwell Field, was sent to Panama to organize the 7th Aero Squadron and erect a station at that place. Captain John F. Cuppy, was sent to Honolulu to organize the 6th Aero Squadron and establish the first Aviation School in Honolulu.

On November 23, 1917, the 135th Aero Squadron was sent to Garden City, N.Y. for overseas duty. 1st Lieut. Arthur Scheleen was commanding officer, with 1st Lieut. K. C. Pulliman, 1st Lieut. Paul Baker and 1st Lieut. T. D. Dixon attached. This squadron went direct to France and later was attached, to the Fourth Army Corps for duty. During the month of September it operated from Ourches (Meuse) with the Fourth Corps.

In January 1918, the 142nd Aero Squadron left Rockwell Field for overseas duty with Captain Roscoe Fawcett commanding, and 1st Lieut. F. M. Conner, Medical Corps, and 2nd Lieut, Alfred Dunn attached. This squadron served in England during the war. In addition to the above units 261 officers and Cadet pilots were sent overseas.

REST CAMP ESTABLISHED:

With the intense training going on at Rockwell Field many of the officers and cadets became stale and quite a few received injuries due to accidents. For the purpose of providing a change of atmosphere for such cases, a Rest Camp was established at Warner's Hot Springs. Warner's Hot Springs is located in the mountains to the east of San Diego at a distance of about 55 miles air line. The location was particularly adapted for use as a rest camp due to:

(a) Its elevation above sea level about 5,000 feet

(b) The complete change of climate, being located in the mountains at an elevation

(c) The hot sulphur water available for use in a swimming pool.

A swimming pool was constructed by the Air Service and tents were provided for the accommodation of such officers and enlisted men who might be sent there. A total of about 50 could be accommodated. One Medical Officer with a permanent detachment of enlisted men was on duty there at all times.

The ground itself was leased to the Government by its owners at a nominal fee. The Rest Camp continued in operation until June 30, 1920. Such aviators as were able were taken up by airplane, a landing field being available in the immediate vicinity; others were sent up by motor transport vehicle.

CELEBRATION OF ARMISTICE:

Rockwell Field placed itself on the map for all times when on November 14, 1918, it celebrated the end of the war by putting into the air 212 airplanes over the city of San Diego. This was the largest number of airplanes in the air at any time, at one place, in the United States up to that time. Lieut. Colonel H. B. S. Burwell was commander of the operation.

DEMOBILIZATION:

The demobilization after the Armistice was carried out during the year 1919. The school stopped functioning as such in January 1919. In March 1919 the actual discharge of the enlisted men started. During that month instructions were received to discharge 1200 enlisted men between March 20th and March 30, 1919. With the reduced personnel it was impossible to officially operate Ream Field and East Field so that all supplies from these points had to be returned to the home station Rockwell Field and these two auxilliary fields left in charge of care-taking detachments.

The garrison was reduced to about 400 enlisted men. It was obvious that 400 enlisted men could not properly take care of over 300 airplanes in use, so that in addition to the discharge of enlisted men, it became necessary to disassemble, cosmoline and crate some 300 airplanes as well as take down the tents and remove tent floors in which the 1400 enlisted men were quartered. By the end of March, however, this work was completed by using all officers and enlisted men as laborers.

1919

COMMANDING OFFICERS 1919:

Colonel H. H. Arnold March 12, 1919 to May 28, 1919
Lt. Colonel Arthur J. Hanlon May 29, 1919 to Aug.23, 1919
Lt. Colonel Henry L. Watson Aug. 23, 1919to Mar. 3, 1920

MR. BAILEY AND MR. PENNEY RETURN:

In April 1919, Mr. Jake Bailey returned for duty as Superintendent of The Machine Shop and Motor Repair.

In December 1919, Mr. A. D. Penney, returned to his old job as Chief Clerk and took charge of civilian employees.

CROSS COUNTRY FLIGHT TO NEW YORK CITY:

In December 1918, Major A. D. Smith with five airplanes left San Diego for the East Coast. These five planes flew to Washington D. C., and later to New York City, by way of Texas, Louisana, Alabama, Georgia, Florida and North and South Carolina. After stopping at New York for several days the return trip was started and the five planes landed safely at El Paso, Texas. Shortly after landing a violent Texas Northern came up overturning and damaging beyond repair all of the planes except one. The one remaining plane was flown to Rockwell Field arriving about January 15, 1919. That was the first tiem in history when more than one airplane had flown from the Pacific to the Atlantic in formation. Had it not been for the violent wind storm at El Paso the five airplanes would have probably returned to Rockwell Field and completed the round trip from the Pacific to the Atlantic.

FOREST PATROL:

In May 1919, Mr. Coert du Bois, District Forester, San Francisco, visited Rockwell Field and requested the assistance of the Air Service in establishing an aerial forest patrol for detection, suppression and prevention of forest fires in the National Forest in the southern part of California. It was decided for this purpose to start on June 1st, a patrol operating from Warner's

Hot Springs over the Descanso and Palomar District of the Cleveland National Forest and Trabucco District. The patrol route would thus cover the entire Cleveland National Forest, messages to be sent from the airplane to the radio station established at Warner's Hot Springs, giving data relative to fires discovered. After operating out of that field from June 1st to June 16th, so many complaints were received from the ranch owners in the vicinity of the landing field at Warner's Hot Springs as to the effect of the airplanes on the cattle which was grazing on the planes nearby, that the base was removed to Rockwell Field and patrols operated from Rockwell Field until the discontinuance of the patrols on September 6, 1919.

On September 6, 1919, the patrol routes were consolidated with those operating from March Field, and Rockwell Field used only as a landing field at the end of the morning patrol to permit the refueling of the airplanes and the pilots and observers to get lunch.

Radio communications were not entirely successful, however, due to the high powered stations in the vicinity of San Diego. These stations were operating almost continuously throughout the day, so that as additional means of communication, carrier pigeons were carried in each plane and released whenever any information of value was obtained.
During the time the patrol operated from Rockwell Field and Warner's Hot Springs 36,854 miles were covered; flying time 410 hours; 24 fires discovered and there were no forced landings or accidents requiring major overhaul.

During 1920 the patrols continued from March Field, landing at Rockwell Field at the end of each morning patrol. This patrol operated up to October 31st of that year.

As a result of the second year patrol it was decided that due to the small number of fires discovered in the immediate vicinity of San Diego and the great number in the vicinity of Los Angeles and Santa Barbara, that the March Field Patrols would thereafter concentrate their activities in the forest immediately adjacent to March Field, Los Angeles and Santa Barbara, so that no forest operations were conducted from Rockwell Field after that date October 31, 1920.

2nd AERO SQUADRON:

On June 3, 1919, in compliance with War Department instructions the 2nd Aero Squadron comprising of 9 officers and 61 enlisted men was organized for ultimate service in the Philippine Islands. Captain R. G. Ervin was commanding officer of the squadron. On November 28, 1919, the 2nd Aero Squadron left Rockwell Field for station in the Philippines and with Captain Ervin still in command.

9TH AERO SQUADRON:

On August 1, 1919, the 9th Aero Squadron was organized at Rockwell Field with 30 officers and 132 enlisted men. Colonel Henry L. Watson was in command. Flight "A" of the 9th Aero Squadron was stationed at Calexico for Border Patrol. On November 5th, Flight "B", headquarters of the 9th Aero Squadron left Rockwell Field with Colonel Watson commanding, for duty at March Field. On December 10th, the 9th Aero Squadron returned from March Field to Rockwell Field for duty.

PERSONNEL:

The personnel at Rockwell Field on July 15, 1919, was as follows:

	201 officers 494 enlisted men
on September, 1919	110 officers 373 enlisted men
on October, 1919	84 officers 381 enlisted men

October 31, 1919:

Two active Squadrons	2nd Aero Squadron
	9th Aero Squadron
17 Civilians	2 Clerks
	10 Airplane and Engine Mechanics.
	5 Utilities

BORDER PATROL:

As soon as the 9th Aero Squadron was organized a Border Patrol was started for the purpose of the moral effect it would have on individuals who were carrying and transporting illegally arms and ammunition into Mexico. The patrol operated from San Diego to a point about 70 miles east of Yuma and return. It was customary for the patrol to leave San Diego in the morning fly to Yuma, remain there during the heat of the day and return to Rockwell Field in the afternoon. The officers engaged in the patrol work in a great many instances had little or no cross-country flying so that some of them had great difficulty in keeping their courses on these flights in spite of the fact that they had maps and compasses with them.

LIEUTS. WATERHOUSE AND CONNELLY LOST IN MEXICO:

2nd Lieutenants Cecil B. Connelly and Frederick Waterhouse were detailed to fly the Border Patrol on August 16, 1919. They left Rockwell Field about 9:00 A.M. and accompanied by a second plane arrived at Yuma on scheduled time. Here they were delayed overnight by a rain storm and attempted to make the return trip the next morning. However fouled plugs and loosened fabric on the prop tips necessitates a further delay of their departure until the receipt of a new prop which was flown over on August 19th by 1st Lieut. W. A. Bevan, engineer officer of the Squadron, who was accompanied by 2nd Lieut. Paul Williams. Necessary repairs made, Lieuts. Bevan and Williams started Waterhouse's and Connelly's motor which was apparently O.K.

Either Waterhouse or Connelly remarked that 1400 R.P.M. was the maximum obtainable but due to the extreme heat of the day and the necessity of guarding against an overheated motor, no further diagnosis was made and both planes took the air. At Calexico as the other plane could not be picked up, Lieuts. Bevan and Williams circled about and observed a plane down in a large field northeast of the town. Descending to 500 feet they were waved on and so proceeded to Rockwell Field. Here it was vertified that Lieuts. Waterhouse and Connelly were down in Calexico. No word was subsequently received until noon of the following day when a report was phoned in by Waterhouse that both wheels had been smashed on a forced landing due to fouled plugs. An Automobile was immediately dispatched to Calexico carrying a mechanic, Sergeant Oscar Hall, and new wheels. Next morning, Wednesday, August 20th, repairs were made, old oil drained away, oil system thwroughly flushed with kerosene and fresh oil replaced and on test the motor performed satisfactorily. At about noon they again took to the air, climbed to about 8,000 feet and headed toward San Diego but they never arrived. Sergeant Hall on the return trip picked up a report at Mountain Springs (two-thirds in) that a plane had been sighted flying west at a time which checked with the schedule of the plane after leaving Calexico.

In this case as always the case of missing aviators, after it had become apparent that some mishap had occurred to the plane, rumors came in rapidly as to their probable location. A thorough sifting of these rumors finally gave almost conclusive evidence that after arriving about Jacumba, they headed into lower California. Airplane patrols were immediately established with a view of locating the officers, and in addition automobile parties from Rockwell Field were sent into Mexico to assist in the search. Parties from Camp Hearn and Rosecrans also assisted in the search. Governor Cantu of Lower California was very obliging and designated certain Mexican troops to assist in the search.

The airplane itself was apparently in first class condition and was equipped with a compass. The pilot and observer both had maps, and in addition both had side arms and canteens of water.

The country was systematically and thoroughly searched from the air and on the ground for a distance of approximately 120 miles south of the border. As the search progressed it became evident from the information received that a search must be carried still farther south. A map was prepared showing their probable route. From this it was decided that they had flown until their gasolinewas exhausted; they could not have gone much farther than a line running east and west through Angelus Bay. In the meantime rumors had arrived from various sources that the Mexican soldiers had located the two aviators. This was believed to be so authorative that on August 26th, the search was declared off and all planes and searching parties were instructed to return. However at a later date, the report could not be corroborated so the search was continued. A base was established at San Quentin from which the airplanes worked to the south. By September 10th, the search was continued to a point within about 10 or 15 miles of Angelus Bay. The search was declared off on September 11th, by War Department Orders and all searching parties ordered to return to their proper stations. On Sept. 16th, a reward of $1,000 was offered by the Government for information leading to the discovery of the two aviators.

By that time the airplane searching parties had covered the country south to San Luis Point on the east coast and Blanco Bay on the West Coast. San Luis Point is about 25 miles from Angelus Bay and about 10 miles from Bahia de Guadalupe. Information received from the searchers on the ground indicated that the plane had flown further south. The actual fate of the missing officers was not known at Rockwell Field until October 13, 1919, on which date

the American Consul at Nogales reported that a seaman arrived in Nogales from Bahia de Guadalupe on October 1st, and had reported that the bodies of two men, probably the two lost aviators, had been found buried on Angelus Bay about September 25th.

On October 16th, an expedition headed by Major R. S. Bratton, 25th Infantry, with Lieut. V. Hine, A. S. left on the U. S. Destroyer "Aaron Ward" for Angelus Bay. This expedition arrived on Angelus Bay on October 19th. The bodies were found as reported and the airplane some 20 miles north at Bahia de Guadalupe. The aviators had apparently made a good landing and from investigation of witnesses and examination of the airplane the following might be expected as the true story of their flight south and ultimate death.

From the airplane:

"Flew four hours five minutes, hit rain storm got lost hit coast in one hour thirty min. turned to our right and flew up coast for 2 hours and 35 minutes -sight of civilization all the way. Saw boat here circled it and then landed but it went on I guess they didn't see us. We have no food drinking water from the radiator tried to catch fish but after two days gave it up. We have been here five days and are pretty weak. We will put a mark for days here on left of this sign. We started walking up coast for day and a half ran out of water and turned back.

Fred Waterhouse."

Days here 11111 11111 11111 11

From witnesses the aviators landed on the beach. Later two fishermen, Mexicans, sailed along the beach, sighted the aviators and went to their assistance. One of the aviators was in bad shape and unable to walk, the other was quite strong. They had been living off clams and crabs and fresh water from the radiator. There was no water there. These fisherman took them south to Angelus Bay and landed them there, later returning and murdering them and partially burying their bodies, probably thinking they had money on their person. The fisherman took such articles of value as they could and departed.

According to a statement made by Mr. Joseph Vandergracht who was engaged in geological survey, his yacht was anchored at the Bahia de Los Angelus on September 11th at 5:30 P.M. On the morning of September 12th, a large blue canoe was seen hauled up on the beach one and a half miles away and contrary to usual custom the canoe kept away from the yacht and made a round about course off of the bay. The occupants were an old man and two fullgrown men and a boy, and in the canoe was a large bundle wrapped in canbas. On September 13th, a party was sent ashore where the canoe was seen and the bodies found.

The examination of the plane revealed the fact that the Mexican Authorities had evidently intended to remove such parts of the plane as they could use or probably take the entire plane and utilize it for their own purposes. The airplane had been partially disassembled and the componet parts piled up prior to their being removed. Such parts of the airplane as were serviceable were returned to Rockwell Field with the expedition. The expedition returned to San Diego with the bodies, arriving at 1:35 P.M. October 26, 1919.

SWEELEY - DUKE LANDING IN MEXICO:

The Connelly-Waterhouse catastrophe had not been entirely cleared up when on October 14, 1919, Lieut. William R. Sweeley with Corporal J. C. Railing as passenger, and Lieut. Daniel F. Duke with Lieut. McCarn as passenger left San Diego at 10:55 A.M. with the ultimate destination as Prescott, Arizona Lieut. Duke was acting as flight leader, Lieut. Sweeley flying in formation. After arriving at Campo for some unknown reason Lieut. Duke headed south into Mexico Lieut. Sweeley following. When they had been in the air a total time of one hour and 47 minutes, Lieut. Sweeley ran out of gas and landed in a field in a valley which was directly under him. At the time

he ran out of gas both planes were at an altitude of 8000 feet. Lieut. Sweeleys plane landed all right. Lieut. Duke continued south for sometime and seeing an adobe house circled it and landed there. Lieut. McCarn after investigating found the house was abandoned so they got into their machine and flew to where the Sweeley plane had landed. In spite of the fact that Lieut. Sweeley had by this time lighted a fire and was endeavoring to show Lieut. Duke to land, Lieut. Duke apparently picked out the worst part of the small valley and landed in a marsh causing his plane to turn up on the nose and breaking the propellor and one wing. After consultation they decided that they had flown too far south and would take the gasoline out of the Duke plane and put it into the Sweeley plane in an endeavor to get back to the American side of the line for assistance. This transfer of gas was made. Lieut. Sweeley started the engine and while trying to taxi to a smooth part of the field ran into a large hole covered with grass. His plane turned over on its back and so four men were stranded at this place without any means of transportation or communication with the outside world.

In the meantime considerable anxiety was felt as to their lack of appearance at their destination. On October 15th, the three officers started to climb the mountain to the east of the small valley in which they landed but about noon gave it up and returned to camp. On their return they saw a calf in the undergrowth and decided to kill it for food, but in trying to separate one from the herd, they stampeded the herd out of the valley. About 6:00 P.M. Lieut. McCarn with Corporal Railing succeeded in driving a steer into a blind canyon and after much shooting brought the animal down, cut his throat with a bearing scraper and returned to the airplane with a quarter of beef. This beef was boiled in a receptacle made from the aluminum cowling of the airplane. At first a plain beef broth was made out

of the beef and water but as this was very unpalatable, water cress growing in the vicinity was added to the concoction thereby bettering its flavor.

All day Thursday, October 16, they remained in their plane waiting for somebody to arrive. Friday October 17th, Lieut. Duke and Corporal Railing started walking north from the valley along a trail. About 3:10 P.M. that same afternoon they met a couple of Mexicans who finally guided them to a camp maintained by the Circle Bar Ranch where they met Mr. Cooper who was in charge of the camp. Lieut. Duke and Corporal Railing remained there over night. On Saturday, October 18th, the manager of the Circle Bar Ranch arrived and took Lieut, Duke and Corporal Railing to the main Ranch House where they got into communication with the American Consul at Ensenada who notified the Commanding Officer at Rockwell Field of the whereabouts of the lost aviators. In the meantime transportation was sent back for Lieuts. Sweeley and McCarn who were brought to the main Ranch House. Lieuts. Sweeley and McCarn arrived at the ranch house about 7:30 P.M.

On Sunday, October 19th, a sergeant from the Mexican Army was sent out to the valley to guard the planes. On Monday evening at 9:00 o'clock, through the courtesy of the Americal Consul at Ensenada, who sent an automobile to the Circle Bar Ranch for transportation, the four aviators arrived at Ensenada. That same evening at 11:10 they took at fishing boat, sailed from Ensenada and arrived at San Diego about 7:00 A.M. Tuesday and returned to Rockwell Field.

The valley in which they had landed was approximately 30 miles due east from Ensenada. Lieut. Duke in his report stated that although he had flown over the course several times he was mistaken in that he thought the sun rose in the east so that when he flew into the sun he was flying to the southeast all the time, as a matter of fact during the noon hour when he was flying toward the sun he was actually flying due south. In any event after considerable amount of red tape and formal documents being passed back and

forth the airplanes were salvaged and returned to San Diego.

1 9 2 0

DEPOT AT LOS ANGELES CLOSED:

In the meantime in conformity with a general scheme the Supply and Repair Los Angeles Air Service Depot was closed up and all supplies shipped to Rockwell Field. This transfer was completed by June 30, 1920.

91ST AND 9TH AERO SQUADRONS:

The 9th Aero Squadron which was organized at Mather Field was sent from Mather Field during the month of February 1920 to Ream Field for training purposes.

On April 20, 1920, the 9th Aero Squadron was ordered from Rockwell Field to Mather Field for duty. Colonel H.L. Watson was still in command.

On April 26, 1920, the 91st Aero Squadron moved from Ream Field to Rockwell Field for duty, and one flight of this squadron moved to Calexico taking over the Border Patrol from the 9th Squadron.

On July 30th, the last detachment, Flight "A", of the 91st Aero Squadron, was transferred to Rockwell Field from Calexico for station.

In June 1920, Flight "A" of the 91st Aero Squadron was sent to Oregon and Washington for forest patrol work.

On October 20, 1920, the 91st Aero Squadron with the exception of a small detachment of one officer and 17 enlisted men, left Rockwell Field for station at Mather Field. This detachment was retained at Rockwell Field for border patrol duty.

BURNING OF HANGAR NO.3:

On April 1, 1920, at 4:45 A.M. Hangar No. 3, in which was stored considerable amount of ammunition, airplane bombs, and flares and other airplane supplies, burned to the ground without any opportunity of saving anything. This building had been used as a storehouse for supplies of the 9th Aero Squadron and at the time contained all of its ordnance property, considerable amount of tools, machinery, office equipment, automobile and motorcycle parts. The Cause of the fire was never determined. The fire was confined to that building, however with the aid of the Coronado Fire Department, Naval Air Station Fire Department, one truck from the San Diego Fire Department and the Rockwell Fire Department.

Total value of property destroyed approximately $45,000.00

COMMANDING OFFICERS 1920:

Lt. Colonel Roy C. Kirtland,	March 3, 1920 to August 3, 1920
Major S. W. Fitzgerald,	Aug. 2, 1920 to Sept. 14, 1922

PERSONNEL 1920:

By June 30, 1920, the personnel of Rockwell Field had been reduced to a total of 34 officers and 153 enlisted men.

December 1, 1920, Mr. E. G. Lupton took over the duties of Superintendent of the Aero Repair Shop.

December 30, 1920, in spite of the fact that the 9th and 91st Aero Squadrons were withdrawn, the total enlisted personnel was 229. This extra detachment was maintained as part of the Supply and Repair Depot.

TITLE OF ROCKWELL FIELD CHANGED:

On March 22, 1920, the official title of Rockwell Field was changed to "Aviation General Supply and Repair Depot, Rockwell Field Coronado, California," and its duties defined as supplying all aviation equipment to an repairing for, the Ninth Corps Area, Hawaii and the Philippines.

CIVILIAN PERSONNEL:

On March 31, 1920, the civilian personnel on the post in conformity with the general policy to replace all enlisted men by civilians at Supply and Repair Depots had increased to 99.

PERSONNEL DECEMBER 31, 1920:

On December 31, 1920, the personnel at this station consisted of:

Major S. W. Fitzgerald, A.S.	- Commanding Officer
1st Lieut. J. M. McCulloch, A.S.	- Adjutant
1st Lieut. A.W. Vanaman, A.S.	- Supply Officer
1st Lieut. Oscar Monthan, A. S.	- Engineer Officer
Major W. M. Vaughan, M. C.	- Post Surgeon
1st Lieut. C. T. Burk, Q.M.C.	- Quartermaster

Other officers doing sundry duties were:

2nd Lieut. W. D. Coney, A.S.	- Commanding, Detachment 9th Squadron
Captain W. M. Randolph, A.S.	
1st Lieut. C. H. Ridenour, A.S.	
2nd Lieut. E. M. Robbins, A.S.	
1st Lieut. E. L. Searle, Jr., A.S.	
1st Lieut. S. W. Seifert, A.S.	
1st Lieut. L. O. W. Moore, M.C.	
1st Lieut. George Pendarvis, D.C.	

1921

DESIGNATION OF ROCKWELL FIELD Again Changed:

On January 31, 1921, the designation of the Army Air Station at Rockwell Field was changed from Aviation Supply and Repair Depot to "ROCKWELL AIR INTERMEDIATE DEPOT."

91ST AERO SQUADRON TRANSFERRED:

During this month the Detachment, 91st Aero Squadron, which had been engaged in Border Patrol was transferred to its proper station, Mather Field, and replaced by a Detachment, 9th Aero Squadron, under the command of Lieut. John R. Morgan, A.S., consisting of three flying cadets and 9 enlisted men, who carried out the Border Patrol from Rockwell Field to Monument No. 189 on the Mexican Border between Arizona and Mexico. Auxiliary landing fields were maintained at Calexico and Yuma.

LIEUT. CONEY'S TRANSCONTINENTAL FLIGHT:

During the month of February 1921, a special airplane was being prepared for a one stop transcontinental flight. This flight to be made by Lieut. W. D. Coney, Air Service. The plane when completed carried a total of 213 gallons of gasoline and 25 gallons of oil and was designed for pilot only, no mechanic to be carried. After waiting considerable time for proper weather conditions Lieut. Coney left Rockwell Field during a rain storm at 7:05 P.M. February 1921, and after considerable hazardous flying dodging mountains and rain storms during the night he was forced down due to trouble with his fuel line at Bronte, Texas, at 7:30 A.M. February 23rd, -after considerable difficulty Lieut. Coney with the aid of mechanics from Dallas Repair Depot repaired the line and left Bronte at 9:30 A.M. central time, arrived at Love Field, Texas, 12:45 P.M. the 23rd.

He left Love Field at 10:13 P.M. on the same day and arrived at Jacksonville, Florida, at 7:40 A.M. on the 24th, elapsed flying time was 57 hours and 24 minutes; San Diego to Bronte distance 841 miles, time 10 hours and 27 minutes; Bronte to Love Field 342 miles, time 3 hours and 52 minutes; Love Field to Jacksonville, Florida 950 miles, time 8 hours and 13 minutes- total 2133 miles, 22 hours and 32 mimutes. Return trip was scheduled for a one stop flight. After waiting some time for proper weather conditions Lieut. Coney started from Jacksonville at 9:00 P.M. on March 23rd, -on the morning of the 24th a heavy fog was encountered over the states of Alabama Mississippi, and Louisana. Trouble with the fuel line again developed and he had to make a forced landing. While attempting a landing his plane hit a tree, he was thrown from the plane to the ground and received injuries from which he died a few days later.

CHANGE IN OFFICER PERSONNEL:

On April 1, 1921, Lieut. R. E. Selff, A.S., commanding officer of the 15th Photo Section, arrived at Rockwell Field for the purpose of making a mosaic of the border between San Diego and Yuma. During the month Lieut. J. R. Morgan was relieved of command of the Detachment, 9th Aero Squadron, and returned to his proper station Mather Field - Lieut. Selff took command of this detachment.

SUPPLY DETACHMENT TRANSFERRED:

During the month of June 1921, the Supply Detachment, Air Service, consisting of 527 enlisted men, which was under the command of Captain Roscoe Fawcett, A. S., was broken up and all but 79 enlisted men sent to Mitchell Field and Post Field to be organized into service squadrons.

PERSONNEL JUNE 30, 1921:

On June 30th, the personnel of Rockwell Field consisted of 12 officers 2 warrant officers and a total of 138 enlisted men. The officer personnel had not changed any since January 1, 1920. This change was consummated due to the fact that the border patrol had been suspended in compliance with instructions received from Corps Area Headquarters. As there were no funds available for transfer of enlisted personnel by train, it was contemplated that the enlisted men of the 9th Aero Squadron at Rockwell Field would be flown to their proper station at Mather Field in airplanes turned out of the Depot for the 91st and 9th Aero Squadrons. Instructions received, however called for the continuation of the aerial mosaic being carried out by Lieut. Selff.

CHANGES IN OFFICER PERSONNEL:

On July 1921, Captain W. A. Bevan joined the station and was made Engineer Officer relieving Lieut. Oscar Monthan who was ordered to the Engineering School at Dayton, Ohio. Lieut. C. H. Ridenour who had been on duty at the station was also sent to the Engineering School for duty

18TH OBSERVATION SQUADRON ORGANIZED:

In September 1921, the Supply Detachment was completely demobilized and all enlisted personnel assigned to the 18th Observation Squadron, a new squadron to be organized at reduced strength in accordance with General Orders No. 26, Headquarters, Ninth Corps Area, dated September 26, 1921. Captain Roscoe Fawcett was placed in command of the squadron.

On July 29, 1921, the last of the Detachment, 9th Aero Squadron, left for Crissy and Mather Fields.

PERSONNEL:

In October 1921, Major W. M. Vaughan, M. C. was transferred to the Letterman General Hospital for duty and Captain L.O.W. Moore, M. C. automatically became post surgeon.

In December 1921, Captain Roscoe Fawcett, was transferred from the Air Service to the Field Artillery and sent to the Presidio of San Francisco for duty.

The strength of the command December 31, 1921, was 8 officers, 2 warrant officers, and a total of 125 enlisted men, of whom 87 were in the 18th Observation Squadron:

Major S. W. Fitzgerald, A.S.	- Commanding Officer
1st Lieut. J. M. McCullouch, A. S.	- Adjutant
Captain W. A. Bevan, A.S.	- Engineer Officer
1st Lieut. A. W. Vanaman, A.S.	- Supply Officer
Captain L. O. W. Moore, M. C.	- Post Surgeon
1st Lieut. C. T. Burk, Q. M. C.	- Quartermaster
1st Lieut. E. L. Searle, Jr. A.S.	
1st Lieut. F. W. Seifert, A.S.	

1922

ACTIVITIES DURING THE FIRST 6 MONTHS:

While the year 1922 is devoid of interest in the history of Rockwell Field in so far as activities of organization are concerned a great many events occurred which had a direct bearing on the development of aviation in general.

During the entire year the station operated as a Supply and Repair Depot, gradually becoming more efficient in the method of supply and efficiency in performance of airplanes and engines produced.

During the month of January 1922, Captain R. G. Ervin, A. S. and Lieut. V. Hine, A.S. who had left this station with the 2nd Aero Squadron for duty in the Philippines returned to Rockwell for duty.

During the month of February Lieut. J. P. Richter, A.S. and Lieut. C. L. Webber, AS. who also served at Rockwell Field previously returned from a tour of duty in the Philippines to Rockwell Field, and Captain L. M. Field, M.C., reported as Flight Surgeon from Mather Field.

PERSONNEL JUNE 30, 1922:

On June 30th the personnel of the field was as follows:

12 officers
3 warrant officers
101 enlisted men
192 civilian employees

Major S. W. Fitzgerald, A.S.	- Commanding officer
1st Lieut. J. M. McCulloch, A. S.	- Adjutant
Captain R. G. Ervin, A.S.	- Supply Officer
1st Lieut. A. W. Vanaman, A.S.	- Engineer Officer
Captain L. M. Field, M. C.	- Flight Surgeon
Captain L.O.W. Moore, M.C.	- Post Surgeon
1st Lieut. J. P. Richter, A.S.	- Employment & Finance Officer
1st Lieut. C. T. Burk, Q.M.C.	- Quartermaster
1st Lieut. V. Hine, A.S.	
1st Lieut. A. W. Marriner, A.S.	
1st Lieut. F. W. Seifert, A.S.	
1st Lieut. C. L. Webber, A.S.	

CONSTRUCTION WORK:

The storage warehouse problem during the year became important and storage space was at such a premium that the construction of new warehouses was started in April. These hangars were completed on July 27, 1922, thereby furnishing sufficient space for the operation of the school.

18TH SQUADRON MADE INACTIVE:

On July 23, 1922, the 18th Observation Squadron was made inactive with the 91st Aero Squadron at Crissy Field as its active associate. The enlisted personnel was transferred to Langley Field and Hawaii for station. After the demobilization and transfers were completed a Detachment, Air Service, consisting of 19 enlisted men remained at the station.

FLIGHT TO SALT LAKE CITY:

On July 26, 1922, Lieut. V. Hine, A.S., and Lieut. C.L. Webber, A.S., started a flight which not only secured for the Air Service valuable information concerning feasible flying routes over the Western States but also demonstrated the reliability of the Rockwell Field engines and the flying qualities of the airplanes being produced. These two officers left Rockwell Field July 26th, and landed in turn at Las Vegas, Nevada; Salt Lake City; Utah; Denver; Colorado; Muskogee, Oklahoma; Fort Sill, Okla; San Antonio, Texas; El Paso, Texas; Nogales, Arizona; and returned to Rockwell Field on August 7th, having covered a distance of approximately 4,000 miles in 36 hours and 37 minutes flying time. The only work done on the plane and engine during the trip consisted of cleaning and checking distributor heads, draining and replacing oil, gasoline and water and tightening the various flying wires.

LIEUT. J. H. DOOLITTLE'S FLIGHT:

On the evening of September 4, 1922, Lieut. James H. Doolittle, A.S. left Pablo Beach, Florida, for a one stop flight to San Diego. He arrived at Kelly Field, Texas, about 7:30 A.M. September 5th, left Kelly Field at 8:20 A.M. and arrived at Rockwell Field at 5:34 P.M. having flown a distance of 2079 miles in 21 hours and 20 minutes. His elapsed time being well under 24 hours. Lieut. Doolittle was one of the pilots who were trained at Rockwell Field during the war. Lieut. Doolittle left Rockwell Field for his proper station San Antonio, Texas, on September 8th.

AIR SERVICE DETACHMENT LEAVES:

On September 22, 1922, the 19 men remaining in the detachment, Air Service, were transferred to Hawaii and Langley Field.

CHANGE IN COMMAND:

On September 14, 1922, Major S. W. Fitzgerald, A.S. Commanding Officer, was transferred to Kelly Field, Texas, for duty, and Captain R. G. Ervin, A.S. senior officer assumed command.

LIEUTS. KELLY AND MACREADY'S ENDURANCE FLIGHT IN T-2:

On September 24, 1922, Lieut, Oakley Kelly, A.S. and Lieut, John A. Macready, A.S., arrived at Rockwell Field with a view of making a trans-continental flight to Mitchell Field, Long Island, New York. They had a thick wing monoplane designated by the Air Service as the T-2. This plane had a wing spread of about 96 feet and was propelled by a single Liberty motor. In their flight to Rockwell Field from McCookField, Ohio, they had covered 2070 miles in 26 hours and 51 minutes. Lieuts. Kelly and Macready had both received their early training during the war at Rockwell Field.

During the two weeks immediately following their arrival at Rockwell Field the airplane and engine were checked over with a view of insuring as much as possible the success of the trip. On Monday October 2nd, a short test flight of 35 minutes was made. On Tuesday October 3rd, the plane was flown for four hours and 30 minutes, on a reconnaissance flight over part of the route they were to travel. This was deemed essential in view of the fact that the T-2 when it left the ground carried a gross weight of about 10,690 lbs., which would not permit of its ascending to sufficient altitude to clear the mountains on a straight line to the east of San Diego. Their line of flight therefore, must of necessity take them thru the Temecula Canyon to the north. On Wednesday, October 4th, the plane was serviced with gas and oil and everything made ready to take off as soon as weather conditions would permit.

The load the T-2 carried was as follows:

Airplane with water and pilots	6096 lb.
35 gals. of Oil	267 "
Gasoline	4231 "
Parachutes	72 "
Food, Maps, etc.	50 "
Total	10,965 lb.

As information received indicated that the weather would be ideal for the flight on October 5th, plans were made accordingly and the T-2 left the ground at San Diego at 5:53 A.M. October 5th, 1922. During the preliminary flights of the T-2 mentioned, it had never been loaded to full capacity and so there was quite a little concern as to whether or not a successful flight could be made. After warming up the engine, the blocks were removed, and the throttle opened. The airplane hesitated, first moved slowly, and then started to run along the ground. After running over half a mile the airplane lifted itself from the ground and the flight was continued towards Point Loma when a turn was made to the left to avoid the point.

The airplane started to settle despite all efforts of the pilots until dangerously close to the ocean. Two complete circles of the island were made about an altitude of 200 feet before the nose of the plane could be pointed along its proper route. It continued to gain altitude until when at Temecula Pass, 50 miles from North Island, an altitude of 1700 feet was reached. Here fog was encountered for the first time. From Temecula until a point near San Jacinto was reached, the plane dodged through the fog, skipping foot hills en route, but when the pass in to Imperial Valley was reached the fog was so thick that it was impossible to continue. After consultation in the air Lieuts. Kelly and Moready decided that they would return to Rockwell Field and break the world's endurance record.

Returning to Rockwell Field a message was dropped to the Commanding Officer requesting that he make necessary arrangements to authenticate the world's record if they succeeded in making it. From then on the T-2 circled around over Rockwell Field for 36 hours and 18 minutes. The pilots took turns in the front cockpit, piloting the machine every six hours, until 5:11 P.M. October 6th, when they landed. After landing it was found that the T-2 had 10 gallons of gasoline and 18 gallons of oil left in its tanks which would have sustained them for about half an hour longer. However, in spite of the fact that there was one or more out of 14 Army and Navy Officers watching the plane during its entire flight, the record was not authenticated and never allowed.

MAJOR H. H. ARNOLD (Author of this History)
ASSUMES COMMAND OF ROCKWELL FIELD:

On October 13, 1922, Major H. H. Arnold, Air Service, joined the station and assumed command.

CHANGES IN OFFICER PERSONNEL:

During the month of October additional changes of personnel were made. 1st Lieut. C. T. Burk, Q.M.C., quartermaster of the station, was sent to Letterman General Hospital for treatment, and Captain L. M. Field, M. C. flight surgeon, was transferred to Crissy Field.

ATTEMPT OF T-2 TO AGAIN CROSS CONTINENT:

During the month of October 1922, the T-2 was reconditioned with a view of again attempting the transcontinental nonstop flight. After waiting for weather conditions to be exactly right, the T-2 left the ground at Rockwell Field at 5:59 A.M. November 3, 1922, headed for New York. However, their attempt was not a complete success in spite of the fact that they broke the world's record for distance flight for they landed at Fort Benjamin Harrison, Indianapolis, on November 4th, after having covered 2284 miles. A cracked water jacket forced them down shortly after 9 o'clock in the morning.

PERSONNEL:

Druing the month of November 1922, 1st Lieut. Lowell H. Smith, A.S. joined the station.

In December 1922, Major H. D. Mumikhuysen, Q.M.C., joined the station as Quartermaster.

1st Lieut. A. W. Vanaman, A.S. engineer officer, was transferred to the Philippines in December.

The strength of the command on December 31, 1922, was as follows:

10 officers
2 warrant officers
42 enlisted men
190 Civilian Employees

Major H. H. Arnold, A.S.	- Commanding Officer
1st Lieut. V. Hine, A.S.	- Adjutant
1st Lieut. L. H. Smith, A.S.	- Engineer Officer
Captain R. G. Ervin, A.S.	- Supply Officer
1st Lieut. J. P. Richter	- Employment -Finance Officer
Captain L. O. W. Moore, M.C.	- Post Surgeon
Major H. D. Munnikhuysen, Q.M.C.	- Quartermaster
Captain W. M. Randolph, A.S.	
1st Lieut. F.W. Seifert, A.S.	
1st Lieut. C. L. Webber, A.S.	

1st Lieut. J. M. McCulloch, A.S. was under orders at this time for duty in Hawaii.

LOSS OF MARSHALL-WEBBER PLANE AND SEARCH THEREFOR:

On December 7, 1922, Lieut. C. L. Webber, A.S. as pilot with Colonel Francis C. Marshall, Cavalry, as passenger, left Rockwell Field in a DH4-B plane for Tucson, Arizona. Lieut. Webber was assistant to the Engineer Officer and was a cross country pilot of considerable amount of skill and experience. The morning of their departure the mountains to the east of San Diego were covered with a thick fog bank, which about 9:30 A.M. appeared to be breaking. Lieut. Webber left the ground at 9:05 A.M. The following morning no word had been received as to their safe arrival at Tucson, telegrams were dispatched along the route to secure information, if possible as to their whereabouts. No definite information could be obtained, As there had been several losses of aviators from one cause or another during the past at this station it was deemed necessary to start and organize searching parties. The airplanes and pilots available were immediately dispatched along the proposed route with a view of determining, if possible, the location of the two missing officers. As the day advanced reports arrived which would indicate that the plane had successfully passed over Arizona at least as far as a north and south line running through Ajo. As additional planes became available they were sent out on this search and as the days went by and no

positive information as to their whereabouts was received, additional planes from Crissy Field, Naval Air Station of San Diego and El Paso, Texas, joined in the search, until there were 42 planes searching the country from San Diego on the west to the mountains to the east of Nogales, Arizona, and Phoenix, Arizona, on the east. In addition to this an entire regiment of Infantry and part of a regiment of Cavalry were also sent out in the mountains assisting. Although information received seemed to confirm the fact that the plane had successfully flown to an area in eastern Arizona, the reports, however, did not seem to be conclusive in view of the fact that there was no one in Imperial Valley who had seen the airplane pass over head and there was great doubt as to whether the plane had successfully gotten through the clouds over the mountains to the east of San Diego.

On December 18th, the officer in charge of the search in Arizona stated that he had run down every clew possible and did not believe that the airplane search would be of any further use and accordingly should be discontinued. As the airplanes returned to Rockwell Field it was decided to make an exhaustive search of the mountains directly east of San Diego and accordingly this area was divided up into sections and 15 airplanes sent out to search each section in detail. These airplanes returned with no definite information and the whereabouts of the missing airplane with the aviators was still a mystery.

On January 11, 1923, the Commanding Officer of Rockwell Field wrote for authority to send an automobile searching party out and follow the airplane on the ground step by step until either the airplane was found or its whereabouts located in the certain area. This authority was granted and on January 15th, an automobile searching party under the command of Major T. C. Macaulay, Officer's Reserve Corps, who had been placed on active duty for this purpose, with the following named officers and enlisted men left Rockwell Field-Lieut. V. Hine, A.S., Lieut. J.P. Richter, A.S., Captain H.A. Erickson, O.R.C. and Privates Martin and Butler.

It is to be noted in this connection that a total of 29 reports from eye witnesses on the ground had been received, all of whom were positive that they had actually seen the Marshall-Webber plane on the morning of December 7th, These places where it had been seen were scattered from San Diego on the west to a point 100 miles north of Yuma, several hundred miles into Mexico south, and east to a point about 50 miles east of Nogales, Arizona. A great many of these people claimed to have seen the airplane at exactly the same time and as these different people were several hundred miles apart it is obvious that some of them must have been in error.

Accordingly the automobile searching party was instructed to verify in one way or another the actual passage of the airplane over each point where it was claimed to have been seen. This automobile party proceeded following the course of the plane as near as possible through Yuma, east over Arizona by way of Ajo to Nogales, and then turned north by way of Tucson to San Diego, arriving in San Diego on February 23, 1923.

A study of the information received from the reports submitted by this party seemed to indicate that the airplane had passed successfully over the mountains to the east of San Diego, Imperial Valley, south of Yuma and Wellton, but had not been seen beyond that extreme desolate area in Arizona to the south and southwest of Ajo. Many of these so called observers who had been interviewed had served with the Army during the war. Some of them actually served at flying fields and were positive that they had seen a DH plane on that date and the time which they claimed to have seen it checked very closely with the time that the Marshall-Webber plane should have passed overhead.

On the evening of May 4, 1923, a telephone call from Colonel Ed Fletcher of the Cuyamaca Water Company gave information that the airplane and its occupants had been found on the Cuyamaca Mountains.

This message was received on the evening of May 4th about 6:00 P.M. and a searching Party consisting of:

Major H. H. Arnold, A.S.
Captain R. G. Ervin, A.S.
Captain L. M. Field, M.C.
1st Lieut. L. H. Smith, A.S.
1st Lieut. J. P. Richter, A.S.
1st Lieut. E. E. Adler, A.S.
Major T. C. Macaulay, O.R.C.
Captain H. A. Erickson, O.R.C.
Six enlisted men

left Rockwell Field on the last Coronado ferry that same evening with a view of arriving on the Cuyamaca Mountains at Daybreak the next morning. After a hard climb up the mountain the airplane with the remains of the occupants was found where it had probably crashed about a half hour after its departure from San Diego on December 7, 1922. A period of five months had elapsed from the date of their departure until the remains were found.

1923

INSPECTIONS:

The year 1923 in so far as the history of Rockwell Field is concerned might be characterized as one of innumerable inspections.

On January 9-10th, inspection was made by Major General Charles C. Morton, Corps Area Commander.

On March 19th, inspection was made by a joint Congressional House and Senate Committee on irrigation.

On April 13th, inspection was made by Major General E. A. Helmick, Inspector General of the Army.

On April 15-18th, inspection was made by Major General Mason M. Patrick, Chief of Air Service.

On May 19-20th, inspection by Secretary of War Weeks and combined Senatorial and House Committee.

July 10th, inspection by Brigadier General I. A. Haynes of the Ninth Corps Area.

July 31st, inspection by General John J. Pershing, General of the Armies, Chief of Staff.

August 8th, inspection by House and Naval Committee.

In addition to these inspections, following additional ones are to be noted:

Auditor for Finance Department January 17th;
Corps Area Air Officer February 9th;
G-3 Ninth Corps Area March 29-30th;
Chief, Property Maintenance and Cost Compilation
Air Service May 6-17th.

Officer in charge Recruiting Activities, Ninth Corps Area, May 1923.

Wood Inspector from McCook Field July 14th-21st;

Sanitary Inspector, Ninth Corps Area June 16th;

Inspector of Pigeon Lofts and Pigeons, July 9th;

Officer in Charge of Organized Reserves; Chief of Staff, 9th Corps Area; 2 G-2 Ninth Corps Area, 2 G-4 Ninth Corps Area, April 20th;

Fire Prevention Inspector, September 6th;

Another Wood Inspector, December 1923.

POST AND FLIGHT SURGEONS:

In January 1923, Captain L. O. W. Moore, Medical Corps, was transferred to the Medical Department, Philippine Islands, and this left Rockwell Field without a surgeon. However Captain L. M. Field, Medical Corps, reported for duty as Surgeon and Flight Surgeon.

TRANSCONTINENTAL FLIGHT OF LIEUTS. KELLY & MACREADY FROM NEW YORK TO SAN DIEGO:

On May 3, 1923, Lieutenants Oakley Kelly and John A. Macready in the T-2, which had left Rockwell Field in October 1922, on a trial nonstop flight San Diego to New York, arrived at Rockwell Field after having completed 2,250 miles from New York in 26 hours and 50 minutes. With a tail wind on their back, the plane landed at Rockwell Field at 12:26 P.M. after having left Hazelburst Field, Long Island, New York, at 12:36 P.M. the day before. The coffee in the thermos bottle which they had brought with them was still hot after they landed. The average speed for the trip was 99 miles an hour. Lunch in New York May 2nd, landed in San Diego May 3rd -truly an astounding feat.

AUCTION SALE:

During the months of February, March and April all the surplus property at Rockwell Field Depot was classified and segregated for an auction sale, so that everything was in order and the auction sale held in May 11, 1923. The auction sale started at 10:00 A.M. on that date. From 10:00 A.M. until 5:00 P.M. due to the versatility of the auctioneers, Messrs. Fox and son, the personnel at Rockwell Field enjoyed not only seeing one of the largest auction sales ever staged, but also a vaudeville show as given by the two auctioneers. At this auction sale the surplus property consisting of Obsolete training equipment which cost the government approximately two million dollars was sold to the highest bidders for about $59,000.00

FIRST REFUELING FLIGHT:

On June 27, 1923, arrangements had been completed whereby it was made possible to refuel airplanes in the air. A DH-4 plane was modified so as it had a gas tank of 50 gallons capacity in the rear of the observers seat and in addition a ten gallon oil tank under the observer's seat. There was also installed a 15 gallon tank for water under the fuselage. Each of these tanks had an opening so as to permit a hose being inserted and receiving gas, oil, or water as the case demanded. Another DH-4 plane was fitted out so that by the use of auxillary tanks, gas, oil and water could be delivered while in flight through a forty-foot hose to the receiving ship below. The success of the flight as well as the mechanical arrangements of the planes was entirely dependent upon the experience and skill of the personnel at the Depot.

On June 27th, at daybreak (4:43 A.M.) the plane left the ground for its first attempt, with Lieut. L. H. Smith as pilot and Lieut. J. P. Richter as receiver of fuel. Lieut. V. Hine was pilot and Lieut. F. W. Seifert was replenisher of fuel and food of the second plane. During this flight it received two contracts of gasoline, the first was twenty gallons gasoline and thesecond 50 gallons gasoline, but the plane was forced down after being in the air 6 hours and 39 minutes due to generator not functioning properly.

The generator was replaced and on the next day, June 28th, at 4:48 A.M., Lieut. Smith again as pilot and Lieut. Richter as receiver of gasoline, oil and water, the plane went up in a second attempt to break all existing records. A triangular course of 50 kilometers was laid out, with one turning point at the South Spot; one turning point at the Tia Juana River bed near San Ysidro, and the other turning point at the Marine Barracks. Lieut. Hine piloted the refueling plane with Lieut. Seifert handling the hose for gasoline and oil. The endurance plane when it left the ground carried a total of 159 gallons of gasoline and during the day an additional 294 gallons of gasoline was furnished it and 15 gallons of oil, and two hot meals, so that when darkness approached on the evening of the first day although the refueling ship had been working continuously since early morning the endurance plane still lacked 30 gallons of gasoline and it was doubtful if they could remain up over night until additional gas could be furnished in the morning. The following morning the ship was still in the air but the pilot was flying with the throttle partly closed in order to conserve gasoline, and Very pistols were being fired every time they passed the pylon on North Island as a signal for more gasoline. The fog in the meantime was dropping lower to the ground so that just about daybreak at 4:10 A. M. when the re-

fueling ship went up to give the endurance ship more gasoline it was necessary to refuel below 100 feet. After having delivered about 15 gallons of gasoline both ships encountered the fog and had to break contact. From then on the fog got thicker and thicker until it dropped down to the ground. At one time the endurance ship circled three times through the fog before it could locate the Marine Barracks in order to turn the pylon. Shortly after 4:35 A.M. the endurance plane was forced down in the marshes to the east of North Island after remaining in the air 23 hours and 48 minutes, and having covered a distance of 1991 miles. On landing in the marsh the plane turned over on its back but fortunately neither the pilot nor observer was hurt.

PERSONNEL ON DUTY JUNE 30, 1923:

On June 30th, the personnel consisted of 8 officers, 3 warrant officers, 31 enlisted men, and 191 civilian employees.

Major H. H. Arnold, A. S.	- Commanding Officer
Lieut. V. Hine, A.S.	- Adjutant
Captain R. G. Ervin, A.S.	- Supply Officer
Lieut. Lowell H. Smith, A.S.	- Engineer Officer
Lieut. J. P. Richter, A.S.	- Employment-Finance Officer
Lieut. F.W. Seifert A.S.	- Signal-Recruiting Officer
Major H.D. Munnikhuysen, Q.M.C.	- Quartermaster
Captain L. M. Field, M. C.	- Post Surgeon-Flight Surgeon

OFFICERS' QUARTERS:

During the first six months of 1923 the officers quarters were materially altered and the two married officers' double set were converted into four single sets.

ADDITIONAL HANGAR ERECTED:

The warehouse became more congested as time went on due to additional supplies being received so that it was necessary to add additional storage space and in October 1923, an expeditionary hangar was erected adjacent to

the warehouse G & H for this purpose.

SPEED, ENDURANCE AND DISTANCE RECORDS
MADE AND BROKEN BY LIEUTS. SMITH AND RICHTER:

During the months of July and August, 1923, the endurance plane which had a forced landing in the bay was reconditioned and as experience in the preceeding flight had demonstrated the impracticability of transferring gas and oil and food to an airplane while in the air with one refueling ship without undue fatigue and nervous exhaustion, it was decided to construct an additional refueling ship. Further, there were a few improvements on both the endurance plane and the refueling plane which developed as a result of the first tests and accordingly were installed in order that when the next attempt was made everything possible would have been done to make the flight a success. As everything was ready about August 15th, it was decided to attempt to break existing records possibly during the period of full moon. Accordingly at 5:04 A. M. August 27th, Lieut. Smith as pilot and Lieut. Richter as receiver of fuel, left the ground in the endurance plane. The plane carried at that time a total of 174 gallons of gasoline, 31 gallons of oil, and 23 gallons of water. The course they followed was the same one flown on June 27-28th, a fifty kilometer course. Gasoline and oil was furnished to them as they needed it and sufficient hot meals during the time they remained in the air, so that when they landed at 6:19 P. M. on August 28th, they had created three new world's records for speed and endurance and broken five world's records for speed, duration and distance.

The following records were broken and made:

50	Laps	-	2500	Kilometers	17	hrs.	30	min.	32-3/5	sec.	88.83 miles
60	"	-	3000	"	21	"	8	"	44-2/5	"	88.10 "
70	"	-	3500	"	24	"	37	"	4-4/5	"	88.05 "
80	"	-	4000	"	28	"	6	"	48	"	88.50 "
90	"	-	4500	"	31	"	36	"	29	"	88.50 "
100	"	-	5000	"	35	"	4	"	28	"	88.75 "

Total elapsed time - 37 hours, 15 min. 14-4/5 seconds
Average Speed - 88.5 miles
Total Distance - 5300 kilometers -3,293. 26 miles
Plane completed last 50 kilometers in 96.42 miles per hour.

During the flight the refueling planes had transferred to the endurance plane 687 gallons of gasoline, 38 gallons of oil and four hot meals. The two refueling planes were manned by Lieut. V. Kline, pilot, and Lieut. Frank W. Seifert, as refueler; Captain R. G. Ervin, pilot, and Lieut. Oliver McNeel, O.R.C. as refueler.

The refueling flight had demonstrated that it was entirely feasible and possible to maintain an airplane in the air over its own airdrome until either the pilot or observer were worn out physically or mechanical trouble necessitated their landing. It was then decided to demonstrate the practicability of refueling an airplane in a nonstop flight from the Canadian to the Mexican Border. These additional tests however, were of necessity delayed until after the end of October for Lieut. Smith who had been the pilot of the endurance plane had been sent to St. Louis to participate in one of the series of races held at that place at the time of the Pulitzer trophy races.

PULITZER TROPHY RACES:

On October 4, 1923, Lieut. L. H. Smith, A.S. participated in the Liberty Engine trophy race held at St. Louis, Mo., and flew an airplane designed at McCook Field called by them the CO-5, which was equipped with a Liberty engine. Inview of the fact that he contested with a normal compression engine against airplanes having super compression engines, the fact that he finished third was considered remarkable.

The race was won by Lieut. C. McMullen flying at 139.03 miles an hour; second by Lieut. H. H. Raney flying at 137.54 miles an hour, and third by Lieut. L. H. Smith, flying at 135.35 miles an hour.

CANADIAN TO MEXICAN BORDER
NONSTOP REFUELING FLIGHT:

After Lieut. L. H. Smith returned to Rockwell Field arrangements were made for the border to border refueling flight. Four airplanes left Rockwell Field to arrange details and carry out the flight. Planes were as follows:

Major H. H. Arnold, A.S., pilot, with Captain L. M. Field, as passenger;
Lieut. L. H. Smith Pilot, and Lieut. J. P. Richter as receiver of fuel;
Lieut, V. Hine, pilot,and Lieut. F.W. Seifert, as refueler;
Capt. R. G. Ervin, a.s. pilot, and Lieut. O. McNeel, as refueler;

These planes left Rockwell Field on October 15, 1923, arriving at San Francisco the same day. The continuation of the flight was delayed several days due to the refueling feat being demonstrated at San Francisco for the benefit of the American Legion Convention and Brigadier General W. Mitchel, Assistant Chief of Air Service, who was in San Francisco at that time.

On October 18th, the four planes continued their flight north and landed at Eugene, Oregon, without further delay. Rain for three successive days prohibited continuation of the flight to the north but on October 23rd, all planes arrived safely at Camp Lewis, Washington, where reconaissance was made for the selection of a field on the Canadian-Washington Border. Refueling planes left for their d stination on October 24th. Lieuts. Hine and Seifert as pilot and refueler proceeded to Eugene, Oregon; Captain Ervin and Lieut. McNeel as pilot and refueler left for Sacramento, California. The following morning, October 25th, at 6:30 A. M. the endurance plane with Lieut. Smith as pilot and Lieut. Richter as receiver of fuel, left Sumas, Washington,

on their flight to the Mexican Border. The refueling plane of Lieuts. Hine and Serfert left the ground at Eugene, Oregon at 9:45 A. M. and proceeded north and met the endurance plane and after two contacts had delivered 75 gallons of gasoline. From Eugene to Sacramento the endurance plane was followed closely by the plane piloted by Major H. H. Arnold with Captain Field as passenger.

The endurance plane arrived at Sacramento approximately 2:10 P.M. and at that place was given 50 gallons of gasoline by Captain Ervin and Lieut. McNeel. The endurance plane passed over the Mexican Border at 6:45 P.M., returned to Rockwell Field and landed at 6:50 P.M. having completed in 12 hours and 15 minutes a distance of 1250 miles. The following day all other planes returned to Rockwell Field from their various stations in the north.

A SECOND LIEUTENANT REPORTS FOR DUTY:

In November 1923, Rockwell Field had the unique distinction of having reported for duty a second Lieutenant, the first second Lieutenant for duty since 1919 - Second Lieutenant Leslie F. Young, Air Service, having qualified for commission after graduation from the University of California, reported for duty on November 15, 1923, while waiting transfer to the Primary Flying School at Brooks Field, Texas.

INFORMATION SECURED FOR AIRWAYS SYSTEM:

On November 5, 1923, Captain R. G. Ervin as pilot, and Captain W. M. Randolph, as observer, flew from San Diego to Phoenix, Arizona, and returned to Rockwell Field the next day for the purpose of securing additional information concerning the airways between these two points.

On November 13th, Captain R. G. Ervin, as pilot, with Lieut. V. Hine as observer left Rockwell Field for the purpose of securing additional infor-

mation concerning the airways systems between Los Angeles and Salt Lake City. This plane returned on November 15th, after having made a successful flight.

NEW SUPPLY OFFICER:

On December 8, 1923, Captain J. H. Houghton, A.S. joined Rockwell Field after having served in the Philippine Islands, and took over the duties of Supply Officer.

LIEUT. SMITH LEAVES FOR LANGLEY TO PARTICIPATE IN ROUND-THE-WORLD FLIGHT:

On December 10, 1923, the Commanding Officer of Rockwell Field received telegraphic instructions from the Chief of Air Service that Lieut. L. H. Smith would proceed immediately to Langley Field, Virginia, to take a course in navigation prior to participation in the Round-the-world flight. Lieut. Smith left for Langley Field on December 16th.

CHANGE OF ENGINEER OFFICERS:

Captain R. G. Ervin, A.S. who had been Supply Officer was made Engineer Officer of the Depot.

PERSONNEL DECEMBER 31, 1923:

The strength of the command on December 31, 1923, was as follows:

10 Officers
3 Warrant Officers
34 Enlisted Men
195 Civilian employees

Major H. H. Arnold, A.S.	- Commanding Officer
1st Lieut. V. Hine, A.S.	- Adjutant
Captain R. G. Ervin, A.S.	- Engineer Officer
Captain J. H. Houghton, A.S.	- Supply Officer
1st Lieut. J. P. Richter, A.S.	- Employment-Finance Officer
Captain W. H. Randolph, A.S.	- Signal & Recruiting Officer
1st Lieut. Frank W. Serfert, A.S.	-
2nd Lieut. L. F. Young, A.S.	
Major H. D. Munnikhuysen, Q.M.C.	- Quartermaster
Captain L. M. Field, M. C.	- Post-Flight Surgeon.

HISTORY OF ROCKWELL FIELD

by

Major H. H. Arnold, A.S.

PART V

HISTORY OF ROCKWELL FIELD

PART V

COMMANDING OFFICERS OF ROCKWELL FIELD:

Lieut. H. H. Geiger, Signal Corps	from Nov. 1912 to June 22, 1913
Captain Arthur S. Cowan, Signal Corps	" June 22, 1913 - April 3, 1916
Colonel W. A. Glassford, Signal Corps	" April 3, 1916 - April 11, 1917
Colonel Alexander L. Dade, Cavalry	" April 11, 1917 - Dec. 7, 1917
Lieut. Colonel Henry J. Damm, A.S.	" Dec. 8, 1917 - Febr. 4, 1918
Major E. B. Lyon, A.S.	" Febr. 4, 1918 - Febr. 15, 1918
Major J. P. C. Barthof, A.S.	" Febr. 15, 1918 - June 5, 1918
Major H. B. S. Burwell, A.S.	" June 6, 1918 - March 11, 1919
Colonel H. H. Arnold, A.S.	" March 12, 1919 - May 29, 1919
Lieut. Colonel Arthur J. Hanlon, A.S.	" May 29, 1919 - August 23, 1919
Lieut. Colonel Henry L. Watson, A.S.	" August 23, 1919 - March 3, 1920
Lieut. Colonel Roy C. Kirtland, A.S.	" March 3, 1920 - August 26, 1920
Major S. W. Fitzgerald, A.S.	" August 27, 1920 - Sept. 14, 1922
Captain R. G. Ervin, A.S.	" Sept. 14, 1922 - Oct. 12, 1922
Major H. H. Arnold, A.S.	" Oct. 13, 1922 - August 15, 1924
Major S. W. Fitzgerald, A.S.	" August 16, 1924 - Nov. 24, 1924
Lieut. Colonel Harry Graham, A.S.	" November 25, 1924

HISTORY OF ROCKWELL FIELD

PART V

RECORDS MADE BY AVIATORS ON ROCKWELL FIELD:

First flight made on Rockwell Field by Army personnel was by Lieut. Louis E. Goodier on October 10, 1912.

On March 28, 1913, Lieut. T. D. Milling created new world record for two people in an airplane by remaining in the air for 4 hours and 22 minutes on a Burgess airplane of the tractor type, equipped with a 70 H.P. Renault engine.

Mackay Trophy for 1913 won by Lieut. J. E. Carberry.

December 26, 1913, Lieuts. J. E. Carberry and W. R. Taliaferro established a new American altitude record for pilot and passenger, reaching an altitude of 7,000 feet.

February 14, 1914, Lieut. T. F. Dodd, completed a cross country flight of 246 miles in 4 hours and 43 minutes, creating an American record.

On October 8, 1914, new American altitude record created when Lieut. H. L. Muller in a Curtiss type J tractor reached an altitude of 17,441 feet.

Mackay Trophy for 1914 won by Captain T. F. Dodd.

January 5, 1915, Lieuts. J. E. Carberry and R. E. Christy, as passenger, established new American altitude record for pilot and passenger reaching an altitude of 11,690 feet.

January 5, 1915, Lieut. B. Q. Jones established new American endurance record by making a continuous flight of 8 hours and 50 minutes.

On March 12, 1915, Lieut. B. Q. Jones with Corporals Hale and Howser as passengers established a new world's record for pilot and two passengers, by remaining in flight for 7 hours and 5 minutes.

On July 4, 1915, civilian instructor Oscar Brindley with Miss Tiny Broadwick, flew over the exposition at San Diego, where Miss Broadwick jumped with her parachute and landed outside of Exposition Grounds.

September 17, 1915, Lieut. W. R. Taliaferro established a new American Endurance record of 9 hours and 48 minutes.

Curtiss Marine Trophy won by Mr. Oscar Brindley on October 22, 1915, after completing flight of 554 miles.

Mackay Trophy for 1915 won by Lieut. B. Q. Jones.

February 15, 1916, Civilian inspector Floyd Smith while conducting an acceptance test for Martin Seaplane established new world's record for hydroplane, with pilot and three passengers climbing to 8603 feet.

On February 10, 1916, Corporal A. D. Smith in a Martin hydroplane established a new world endurance record for hydroplane remaining in the air 8 hours and 24 minutes.

November 14, 1918, Rockwell Field celebrated the end of the war by putting 212 airplanes in the air over the city at one time.

December 1918, Captain A. D. Smith with 5 airplanes left San Diego for New York. Four planes overturned at El Paso on the return home trip by a severe storm. All four planes were damaged beyond repair. The other plane returned to Rockwell Field January 15, 1919. This was the first time in history when more than one airplane had flown from the Pacific to the Atlantic in formation.

February 21, 1921, at 7:05 P.M. Lieut. W. D. Coney left Rockwell Field on a one stop transcontinental flight to Jacksonville, Florida. Trouble with fuel line caused hi m to land at Bronte, Texas, at 7:30 A.M. central time He left Bronte 9:30 A. M. February 23. Left Love Field 10:15 P.M. Feb. 23rd, and arrived Jacksonville, Florida 7:40 A. M. on Feb. 24th.

September 4, 1922, Lieut. James H. Doolittle, A.S. left Pablo Beach , Florida, for a one stop flight to San Diego. Arrived Kelly Field, Texas, 7:30 A.M. on Sept. 5th, left Kelly Field at 8:20 A.M. and arrived at Rockwell Field at 5:34 P.M. having flown a distance of 2079 miles in 21 hours and 20 minutes. Lieut. Doolittle received his training at Rockwell Field.

On September 24, 1922, Lieuts. Kelly and Macready arrived at Rockwell Field in the monoplane T-2, from McCook Field, Ohio. They covered 2070 miles in 24 hours and 31 minutes but this was not a nonstop flight.

On October 5, 1922, Lieuts. Kelly and Macready, left the ground at Rockwell Field at 5:53 A. M. in the T-2, for the purpose of making nonstop flight to New York City. Fog was encountered in Imperial Valley so they returned to Rockwell Field and decided to break the world's endurance record. The T-2 circled over Rockwell Field for 36 hours and 18 minutes, pilots taking turns at piloting the machine every six hours.

At 5:59 A.M., October 5, 1922, Lieuts Kelly and Macready again attempted to make a nonstop flight to New York, but after covering a distance of 2284 miles were forced to land at Fort Benjamin Harrison, Indiana, due to a cracked water jacket.

On May 3, 1923, Lieuts. Kelly and Macready in the T-2 arrived at Rockwell Field from New York, having completed 2,250 miles in 26 hours and 50 minutes. They landed at Rockwell Field 12:26 P.M. May 3rd, after leaving New York 12:36 P.M. May 2nd.

First refueling flight attempted June 27, 1923, by Lieuts. Smith and Richter. However, after remaining in the air 6 hours and 39 minutes and receiving two contacts of gasoline, they were forced down due to generator not functioning properly.

On June 28, 1923, at 4:48 A.M. Lieuts. Smith and Richter again attempted to break all existing records, however after remaining in the air 23 hours and 48 minutes they were forced down due to fog dropping to the ground.

August 27, 1923, at 5:04 A.M. Lieuts. Smith and Richter again attempted to break existing records. They remained in the air a total of 37 hours and 15 minutes, landing at 6:19 P.M. August 28th. They created three new world's records for speed, duration and distance. Their average speed was 88.5 miles. Total distance 5300 kilometers, 3,293.26 miles.

October 25, 1923, at 6:30 A.M. Lieuts. Smith and Richter left Sumas, Washington, for anonstop refueling flight from the Canadian Border to the Mexican Border. They passed over the Mexican Border at 6:45 P.M. and landed at Rockwell Field at 6:50 P.M. having completed a distance of more than 1250 miles in 12 hours and 13 minutes.

HISTORY OF ROCKWELL FIELD

by

MAJOR H. H. ARNOLD, A.S.

PART VI

HISTORY OF ROCKWELL FIELD

PART VI

LIST OF ORGANIZATIONS SERVING AT ROCKWELL FIELD:

On November 4, 1912, a Detachment of the Signal Corps arrived at North Island and was stationed there until the summer of 1913.

Another Detachment of the Signal Corps arrived on North Island during October 1913.

The 4th Regiment, U. S. Marines, arrived on North Island July 5, 1914, for guard duty and served in such capacity until December 22, 1914.

The 1st Aero Squadron was organized at Rockwell Field, August 1914. On July 26, 1915, this squadron left for duty at Fort Sill, Oklahoma.

The 2nd Aero Squadron was completely organized December 1, 1915. This squadron left for duty in the Philippines in June 1916.

Two Companies of the 21st Infantry arrived at Rockwell Field, April 12, 1917, for guard duty and remained until August 1917.

On August 11, 1917 the 19th Company of Coast Artillery Corps arrived for guard duty.

On March 5, 1917, the 6th Aero Squadron left Rockwell Field for duty in Hawaii.

On March 10, 1917, the 7th Aero Squadron left Rockwell Field for duty in Panama.

The 135th Aero Squadron left Rockwell Field November 23, 1917, for duty overseas.

The 142nd Aero Squadron left Rockwell Field in January 1918 for duty in England.

The 2nd Aero Squadron was organized at Rockwell Field June 1919 and left for duty in the Philippines in November 28, 1919.

The 9th Aero Squadron was organized at Rockwell Field, August 1919, and served until 1920, when it was ordered to Mather Field.

In February 1920, the 91st Aero Squadron arrived from Mather Field and served at Rockwell Field until October 1920.

The Supply Detachment consisting of approximately 700 enlisted men, was organized in July 1920, from the Air Service Casual Detachments.

In June 1921, the Supply Detachment was broken up and enlisted men transferred to Langley Field, Virginia and Hawaii.

On September 26, 1921, the 18th Observation Squadron was organized and continued as such until July 23, 1922 when it was made inactive.

A small Air Service Detachment was organized at Rockwell Field, July 1922, and served until September 1922.

1924

INSPECTIONS MADE AT ROCKWELL FIELD DURING 1924:

Mr. Tartarian, wood inspector for the Air Service, arrived at Rockwell Field during the latter part of December 1923, for the purpose of inspecting all wood used at this Depot for the construction of Airplanes, and also segregating the good wood from the bad. The wood which was found to be in good condition was stacked according to the latest methods to prevent deterioration. Mr. Tartarian left this station on May 2, 1924.

Major General Charles G. Morton, Corps Area Commander, inspected Rockwell Field, January 24-25, 1924. A reception and dance was given in his honor at the Officers' Club, the evening of the 25th.

Major Loyd B. Magruder, I.G.D., Corps Area Inspector, made the usual annual inspection of the post on January 25-28, 1924.

Captain H. A. Hale, D. C., Dental Surgeon, reported at Rockwell Field, February 25th for the purpose of rendering dental treatment to the personnel of the command. Captain Hale departed March 27th.

The annual sanitary inspection of the post was made on April 8th, by Major Charles E. McBrayer, Medical Corps.

The telephone system of Rockwell Field was inspected on May 5th by Mr. Walter S. McDonald, electrical engineer of the 9th Corps Area.

Mr. Robert Loghry, radio engineer of the 9th Corps Area, inspected the radio station of Rockwell Field on May 5th.

Lieut. Shiras H. Blair, Air Service, arrived at Rockwell Field June 9th, for purpose of inspection and instruction of Air Service property methods. He left this station July 15th, en route to the Philippine Islands.

ARRIVALS AND DEPARTURES OF OFFICERS
AT ROCKWELL FIELD, 1924:

Captain Ezra Davis, Q.M.C., reported for duty at Rockwell Field on February 16th, from the Hawaiian Department, and assumed duties of the Post Quartermaster on March 19th.

Captain William M. Randolph, Air Service, who had been stationed at Rockwell Field for almost four years left April 19th, via transport, for his new station, France Field, Panama.

Major H. D. Munnikhuysen, Q.M.C., Post Quartermaster, left May 2nd, for duty at Fort Sam Houston, Texas.

Captain William C. Ocker, who was one of the first Air Service men to be trained at Rockwell Field, reported for duty on May 6th, from Bolling Field, D.C.

On August 15th, a Despedia was given at Rockwell Field in honor of Major H. H. Arnold, A.S., commanding officer of the post, who had received orders for duty in the office of the Chief of Air Service. During the afternoon many athletic events took place, and at five o'clock a barbecue supper was served. Approximately 1,500 people attended this affair which was enjoyed by all. Major Arnold with his family, departed for Washington early the morning of the 16th, leaving a host of friends and well-wishers behind.

Major S.W. Fitzgerald, A.S., who was in command of Rockwell Field prior to tour of duty of Major Arnold, returned and assumed command of the station pending the arrival of Lieut. Colonel Harry Graham, A.S. who succeeded Major Arnold. Major Fitzgerald assumed temporary command on August 16th, and remained here until November 29th, when he returned to his permanent station, Kelly Field, Texas, via air, in a DH4-B1 plane built at this station especially for his use.

1st Lieut. John G. Williams, A.S., reported for duty on September 25th, from Brook Field, Texas.

Lieut. Virgil Hine, A.S., popular adjutant of Rockwell Field, having received orders for change of station, left this post on October 17th, for Brooks Field, Texas.

Lieut. J. P. Richter, A.S., Employment and Agent Finance Officer, also received orders for change of station, and departed September 27th, for Kelly Field, Texas accompanied by the incomparable "Rags".

Lieut. A.B. Pitts, A.S., and Lieut. Bernard T. Castor, A.S., arrived at Rockwell Field, November 4th, for duty, from Chanute Field, Rantoul, Illinois, Lieut. Pitts was appointed Employment and Agent Finance Officer, and Lieut. Castor as adjutant of the post.

Lieut. Colonel Harry Graham, A.S., arrived at Rockwell Field, on November 25th, from Langley Field, Hampton, Virginia, and assumed command of the station.

Captain Lowell H. Smith, A.S., Commander of the Round-the-World Flight returned to his proper station, Rockwell Field on December 27th. Captain Smith was promoted from grade of 1st Lieut. Air Service, to rank of Captain, effective December 4, 1924, as a reward of the successful completion of the World Flight.

VISITORS DURING 1924:

Lieut. Colonel W. E. Gilmore, A.S., Air Officer of the 9th Corps Area, visited this depot on February 19-22nd, bringing with him aeronautical films showing the development of aviation. These films were shown before the Chamber of Commerce, Rotary Club, American Legion, High School and other organizations in the city of San Diego creating much interest.

Miss Ruth Law, famous aviatrix, visited Rockwell Field, March 19th.

Mr. Glenn L. Martin, noted aeronautical engineer and president of the Glenn L. Martin Aircraft Company of Dayton, Ohio, visited Rockwell Field, May 10th, and was very much impressed with the shop methods.

Lieut. Colonel Frank P. Lahm, A.S., new Corps Area Officer, with Lieut. Colonel W. E. Gilmore, A.S., former Air Officer, visited Rockwell Field during the latter part of July.

Major Delos C. Emmons, commanding officer of Crissy Field, paid a visit to Rockwell Field on August 19th.

RECRUITING ACTIVITIES:

Major A. R. Emery, Infantry, in charge of Recruiting Activities of the Ninth Corps Area, accompanied by Major Edward H. Pearce, inspected the recruiting activities of Rockwell Field during the early part of January 1924. All recruiting activities ceased at Rockwell Field January 25th, and were transferred to Los Angeles, California.

ROUND-THE-WORLD PLANES:

The Round-The-World Fliers landed at Rockwell Field, March 8th, from Santa Monica, for the purpose of swinging the compasses on their planes and changing engines prior to departure on a trip around the world. A buffet supper and dance was given in honor of the World Fliers at the Officers' Club, the guests including prominent Army, Navy and Marine Officers, as well as civilians socially prominent in this vicinity. The World Cruisers were on exhibition to the Public at Rockwell Field, Sunday, March 9th, and a small charge of admission was made, the proceeds of which were turned over to the Army Relief Society. A tea was also given at the Officers' Club, Sunday afternoon. The World Fliers left Rockwell Field, March 15th, for Santa Monica.

POLO TEAMS:

The Hawaiian polo teams and the 11th Cavalry Polo Teams arrived at Rockwell Field, March 3rd, for a series of polo games at the Coronado Polo Grounds with members of the Pacific Coast Team Association. The Hawaiian Polo Team won the open championship. Captain R. G. Ervin, A.S., a member of Rockwell Field, was a player on the Riverside Team which won the Junior Championship. The polo Teams left April 6th.

CROSS-COUNTRY FLIGHTS 1924:

On March 24th, Major H. H. Arnold, commanding officer, with Major H.D. Munnikhysen, Captain J. H. Houghton, Captain W. M. Randolph, Captain L. M. Field, Lieut. V. Hine and Lieut. J. P. Richter, left Rockwell Field, in four planes for Seattle, Washington, to participate in Army Relief Exhibition in connection with departure of Round-The-World planes. They returned to Rockwell Field April 5th.

Major H. H. Arnold, Commanding officer, with Captain J. H. Houghton, Captain R.G. Ervin, Captain Ezra Davis, Captain L. M. Field, Lieut. V. Hine, and Lieut. J. P. Richter, with two reserve officers, flew to Yuma, Arizona, on May 8th for the purpose of participating in flying exhibition for benefit of American Legion Convention. They returned May 9th.

On September 27th, Major S. W. Fitzgerald, accompanied by Captain R. G. Ervin, Captain William C. Ocker and Lieut. J. P. Richter, left Rockwell Field via air, for Dayton, Ohio, for purpose of attending International Air Races at that place. Major Fitzgerald and Lieut. Richter returned here on October 6th, while Captains Ervin and Ocker proceeded on to Washington, D. C., by air, for purpose of delivering DH-4-BL airplane to Major Arnold, which was built especially at Rockwell Field for Major Arnold. Captains Ervin and Ocker returned to Rockwell Field, via air, in a plane which was flown to the east Coast by Lieut. Goddars, photographic officer.

91ST OBSERVATION SQUADRON ARRIVES FOR SUMMER TRAINING CAMP:

The 91st Observation Squadron, consisting of 8 officers and 97 enlisted men, and the 15th Photographic Section, with one officer and 15 enlisted men, arrived at Rockwell Field, June 8th, by truck train from Crissy Field, Presidio of San Francisco. These organizations were ordered here on temporary duty in connection with the summer training camps conducted at Rockwell Field for R.O.T.C. Students, and Reserve Officers. During the summer training camp period, June 20th to July 31st, 14 R.O.T.C. Students were training and instructed. Major George H. Peabody, A.S., was in charge of this detachment, and Major H.C.K. Muhlenberg, A.S., acted at instructor. During the period August 3rd, to August 17th, 96 Reserve Officers and 22 enlisted men received training and instruction. Captain M. F. Davis, A.S. was in charge of this detachment. The 91st Squadron and 15th Photo Section left Rockwell Field, August 20th, by truck train for their home station, Crissy Field.

STRENGTH OF COMMAND, JUNE 30, 1924:

The strength of the command at Rockwell Field, June 30, 1924, was 10 officers, 2 warrant officers, 33 enlisted men and 200 civilian employees:

Major H.H. Arnold, A.S.	Commanding Officer
1st Lieut. V. Hine, A.S.	Adjutant
Captain J.H. Houghton, A.S.	Depot and Station Sup. Officer
Captain R. G. Ervin, A.S.	Engineer Officer
Captain William C. Ocker, A.S.	Property Officer for Reserve Camp
Captain Ezra Davis, Q.M.C.	Quartermaster
Captain L.M. Field, M.C.	Post and Flight Surgeon
1st Lieut. Lowell H. Smith, A.S.	D/S World Flight
1st Lieut. J. P. Richter, A.S.	Employment-Agent Finance Officer
1st Lieut. Frank W. Seifert, A.S.	O.I.C. Guards-Fire Marshall

RETURN OF WORLD FLIERS:

On September 22nd, the Round-the-World Fliers, landed at Rockwell Field, on the last lap of their journey to complete the flight around the world. Lieut. Lowell H. Smith, A.S., who was in command of the flight, was first to land, and

incidently it is with great pleasure that Rockwell Field claims Lieut. Smith as a member of its command. During the short visit the World Fliers paid at San Diego many notable entertainments were given in their honor and valuable gifts presented to them. The City of San Diego presented each flier with a handsome solid silver service set. These gifts were presented at the San Diego High School Stadium, accompanied by appropriate addresses of welcome by the Mayor and prominent Army, Navy and Marine officials. The World Fliers departed for Clover Field, Santa Monica, September 23rd.

MOORING MAST:

On March 18th, 1924, the Secretary of War granted the request of the Secretary of Navy for the erection, by the Navy Department, of a portable type mooring mast within the limits of Rockwell Field. The location of this mast in on the Army reservation at a point directly west of the so-called South Spot. It is understood that the cost of the installation was approximately $10,000.00

On October 10th, about 11 p.m. the Navy Dirigible, the "Shenandoah", arrived at Rockwell Field, after a remarkable flight cross-country from Lakehurst, N.J., -the "Shenandoah" was anchored to the mooring mast for several days. It is estimated approximately 25,000 people visited Rockwell Field during this time to see the "Shenandoah".

DEMOLITION OF TEMPORARY BUILDINGS:

During the fiscal year, 1924, eleven temporary buildings, constructed during the war period and no longer needed for the use of Rockwell Field, were demolished. The removal of these buildings added a great deal to the appearance of the post in that they were more or less out of repair and very unsightly.

ALTERATIONS OF BUILDINGS:

During the fiscal year 1924, a concrete floor was installed throughout in the Aero Repair shop at a cost of $8530.82. There was also installed in Ware Houses "G" & "H" bins and shelving for the re-warehousing project of the

Air Service Depot at a cost of $7,845.00. The Chief of Air Service also allotted funds in the sum of $500.00 for the construction of a Propellor Storage room, and $800.00 was allotted for replacement of Oil Reclamation Boiler, 20 H.P.

SPEED BOATS:

The speed boat "Aviator" was given a complete overhaul at this depot and transferred by order of the Chief of Air Service to the Panama Canal Zone. In her place the launch "Pep", a 25 foot 150 horsepower boat was transferred from San Francisco. This vessel and the "Natalie" now constitute the Speed boats of Rockwell Field.

CARE AND IMPROVEMENT OF GROUNDS:

Every effort was made during the year to improve the grounds at the field. The lawns in the vicinity of the Officers' Quarters and the grounds at the field and hospital have been placed in fairly good condition, but owing to the shortage of water did not get the growth anticipated. There were planted in the lawns in front of the Officers' Quarters palms of various kinds. One of these was a magnificent specimen removed from Coronado that was said to have been one of the oldest trees in that vicinity. The tree was about 3-feet in diameter and thirty feet tall. It was donated by the Misses Harlow, and was removed from their lawn in Coronado and transplanted at Rockwell Field at which last place it has thrived and grown without interuption.

During the year gardens were developed in the rear of the Officer's Quarters with wonderful success. On account of the fact that gardens were made in what was regarded as a sand bank it was considered remarkable that garden stuff could be grown with success. This, of course was only made possible by irrigation. It was merely another illustration that anything can be grown in California soil if it is provided with sufficient water.

RADIO STATION:

The Chief Signal Officer during the early part of 1924 allotted $1,500 for the erection of two steel mast radio towers. The Radio Station was officially placed in operation November 1st, called station " WHY."

LOCOMOTIVE CRANE:

During the early part of 1924 a locomotive crane was transferred to Rockwell Field from the Mare Island Navy Yard. This crane was moved on its own wheels as a part of a freight train from San Francisco to Rockwell.

STRENGTH OF COMMAND DECEMBER 31, 1924:

The strength of the command of Rockwell Field, December 31, 1924, consisted of 11 officers, 2 warrant officers, 34 enlisted men and 200 civilian employees:

Lieut. Colonel Harry Graham, A.S.	Commanding Officer
1st Lieut. Bernard T. Castor, A.S.	Adjutant
Captain J. H. Houghton, A.S.	Depot-Station Supply Officer
Captain R. G. Erwin, A.S.	Engineer-Operations Officer
Captain William C. Ocker, A.S.	O.I.C. in charge Guards-Fire Marshal
Captain Ezra Davis, Q.M.C.	Quartermaster
Captain L. M. Field, M.C.	Post-Flight Surgeon
1st Lieut. John G. Williams, A.S.	Asst. to Depot-Station Supply Officer
1st Lieut. A. B. Pitts, A.S.	Employment-Agent Finance Officer
1st Lieut. Frank W. Seifert, A.S.	Athletic Officer
Captain Lowell H. Smith, A.S.	On leave of absence.